

# BUTANE-PROPANE

HEADQUARTERS FOR LP-GAS  
INFORMATION SINCE 1931

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FEBRUARY, 1952 — 50c per Copy

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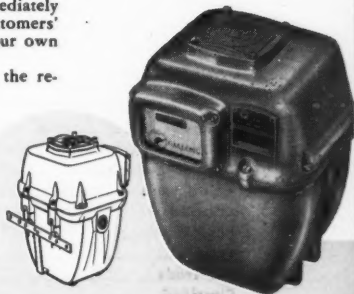
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### Publication Office

Los Angeles (4)—198 So. Alvarado St.  
Phone DUnkirk 7-4337

### Branch Offices

**New York (18)**—11 W. 42nd St.  
Raymond M. Schuster, District Mgr.  
Peter Wile, Asst. District Mgr.  
Phone CH 4-1969

**Chicago (3)**—1064 Peoples Gas Bldg.  
David Carmen, District Mgr.  
Phone WAbash 2-2589

**Cleveland (15)**—1836 Euclid Ave.  
James K. Gillam, District Mgr.  
Phone PRospect 1-4584

**Tulsa**—P. O. Box 4053  
Craig Espy, District Mgr.  
Phones: Bus.—2-2414; Res.—7-9807

Lynn C. Danny, Executive Editor  
Carl Abell, Editor

Lester L. Luxon, Technical Editor  
Barbara Hall, Editorial Assistant  
O. D. Hall, Mid-Continental Editor  
Raymond A. Grote, Art Editor

Jay Jenkins, President and Publisher  
Paul Lady, General Manager  
D. Newlon, Advertising Manager  
C. F. Kamin, Circulation Manager  
Gene Masters, Research

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## Letters

HEADQUARTERS FOR LP-GAS INFORMATION SINCE 1931

### NEW MEXICO

We are called upon to make an estimate on a propane installation in the local high school for a heating system to compete with stove oil.

The propane cost is 14 cents per gallon.

The stove oil cost is 16 cents per gallon.

Please let us know how to compare these fuel prices.

J.R.S.

In order to compare the fuel prices, it is best to place them on a common basis, then make an allowance for the efficiency with which the fuels are burned. The therm, representing 100,000 Btu, is a satisfactory basis, so it will be used.

Propane contains approximately 91,500 Btu per gal. and furnace oil, although the heating value varies, can be assumed to contain about 135,000 Btu per gal.

On this basis, and the cost per gallon of the two fuels as set forth in your letter, a therm of heat from propane will cost  $15.3c$  ( $100,000 \div 91,500 \times 14c$ ), and oil will cost  $11.85c$  ( $100,000 \div 135,000 \times 16c$ ).

This is not the final basis for comparison, even on cost alone, since gas can be and is more efficiently burned than oil due to a number of reasons. It is not unreasonable to say that gas heating appliances will operate 10% more efficiently than oil. For example, a gas appliance may work at 77% efficiency while an oil unit will operate at 67% efficiency. Then a therm of heat, delivered to the room for propane at 14c per gal. will cost  $15.3c \div .77 = 19.9c$  while a therm from oil will cost  $11.85c \div .67 = 17.7c$ .

Propane has many desirable qualities which may offset the difference in price

of the two fuels, since the ease of control, closer control of efficiency, cleanliness, cost of electric power to operate oil equipment, etc., may favor gas.—Ed.

### ALBERTA

Our company in installing a propane-air mix distribution system in a small town. As it is expected in the years to come there will be natural gas available to this town, some argument has arisen as to the Btu content the propane-air mix should be to compare with 1000 Btu natural gas.

We do not want any changing of appliances if there ever is natural gas available. What do you believe to be the correct propane-air mix Btu?

E.C.R.

You will not be able to change from an L. P. gas-air mix to natural gas without making adjustments on customer appliances. Some appliances may require minor changes.

We recommend you study the chapter entitled "Interchangeability of Other Fuel Gases With Natural Gases" on p. 311 of the Handbook Butane-Propane Gases. Also for a more thorough discussion, with illustrations, the American Gas Assn., 420 Lexington Ave., New York City, has published the following bulletins: Report No. 645,

● BUTANE-PROPANE NEWS welcomes letters from our readers, but it must be understood that this magazine does not necessarily concur in opinions expressed by them.—Editor.

Mixed Gas Research Investigation—Utilization of Butane-Air and Mixtures of Butane and Various City Gases Employed to Meet Fluctuating Demands"; and Research Bulletin No. 36 "Interchangeability of Other Fuel Gases With Natural Gas."

The mixture of propane and air which will be interchangeable with natural gas with a minimum of burner change and adjustments will probably be in the range of 1475 to 1575 Btu per cu. ft., depending upon the quality and physical composition of the natural gas.—Ed.

#### NEW YORK

We have had requests to operate generating plants powered by Briggs & Stratton engines with propane gas. Upon inquiring about this from the manufacturers, we were informed that the conversion to natural gas would cost \$8.50, but they had no information as to a conversion to propane gas.

Can you tell us whether such a conversion would be possible and practical? These plants are small 2500 watt plants, and the Briggs & Stratton engines are small ones.

R.W.E.

The propane conversion should include a carburetor attachment, or spud-in, and a low pressure regulator to drop the utility gas from line pressure to atmospheric pressure. All that you need to do in addition is to provide an ICC cylinder, and a high pressure regulator calibrated for an outlet pressure equal to the line pressure at which the utility companies deliver their gas. Your utility company can advise on this, and your regulator supplier can provide an appropriate regulator.

After the outlet of your primary regulator is connected to the inlet of the low pressure regulator, you will need to set the adjustment on the carburetor attachment for maximum power on the propane gas, then check the ignition timing for smoothest and quietest operation, and you are all set.—Ed.

#### INDIANA

Some time ago you wrote an article on converting a Ford F-8. I think you suggested using a Lincoln head. How much do you mill this head and what compression ratio do you get? Will the Lincoln head work on a 1951 Ford F-8?

H.T.

For butane, use the Lincoln head without change. For propane or high propane mixtures, mill the head .060 in., which gives 7.75:1 compression ratio. If the head is milled, be sure to deepen the cells over the dome-top pistons.

Cool the manifold by driving metal plugs into exhaust heat passages of intake manifold.—Ed.

#### OHIO

At the present time I am in the self-service (20 lb.-100 lb. bottles) propane gas business.

I am anticipating, in the near future, going into the bulk end of the business which would mean filling my own tanks and also getting into the home heating and tractor business. I have bought a piece of ground 200 ft. x 480 ft. on a main road. The 200 ft. is the frontage.

Now, I am wondering if you could help me to lay out my ground for a bulk system, or give me any suggestions which would help me.

J.H.

We suggest you study the National Board of Fire Underwriters Pamphlet No. 58 before laying out your bulk L. P. gas plant. It would be well to obtain a copy of your state code for L. P. gas installations, too, and study it. These codes are guides, outlining minimum requirements for safe practices for storage and handling of liquefied petroleum gases.

A few suggestions which we believe may be of assistance to you are:-

1. Keep a minimum of 50 ft. between your tanks and the nearest property line which may be built upon. Keeping the

distance over 50 ft. is helpful for insurance reasons.

2. The storage tanks should be kept to the rear of the lot both for safety and also to permit the construction of offices and display rooms on the front portion at a future date.

3. Give due consideration to prevailing wind direction, slope of the ground and other factors which would tend to carry any gas which might leak away from buildings or sources of ignition. Keep buildings which you construct or plan to construct the proper distance from the tanks.

4. Wherever fuel is to be withdrawn from the storage tanks by pumps, set the tanks on foundations which provide adequate height to give some head to liquid flowing to the pump inlet. Also, keep pipe sizes large for pump intakes. Remember that liquid L. P. gas is always handled at its boiling point and any drop in pressure causes the formation of vapor. This causes reduced pumping capacity, pump vapor-lock, and excessive wear.

5. The current series of article in BUTANE-PROPANE News by C. C. Turner will provide you with an excellent guide with which to set up your price structure and efficient sizes of consumer tanks.—Ed.

#### TENNESSEE

We have learned that calcium chloride has very high quality as a water absorbent. We would like to know if it would be advisable to put this chemical in propane gas tanks to help eliminate the possible freezing of ice in the regulator.

F.W.H.

Calcium chloride will absorb moisture from a gas or vapor and is often used as a drying agent.

We cannot say what results will be obtained if it is placed in the storage vessel. We doubt if it will be entirely successful since there is a limit in the amount of moisture it can absorb. Also, we do not have any information available about the effect of liquid L. P. gas on its absorbing properties.

Any moisture that may be in the tank

and which might be absorbed by the calcium chloride will not be removed, but held in the tank. In case some action does occur to destroy the calcium chloride then the water is released again to cause trouble.

It has been reported that other chemicals used in the tank to absorb water have not proved entirely successful, since "freeze-ups" have been reported when they were used in the tanks.—Ed.

#### ITALY

I saw that in the U.S. it is recommended to draw the L. P. gas from the bottom of the container through the excess flow-valve.

Here in Italy I have been told that on the bottom of the tank there is an average of 3"-4" of mud. Therefore, they are forced to have a 4" dip tube on the excess flow valve. What happens with the U.S. tanks when they draw L. P. gas from the bottom of the tank?

I.A.B.

It is not necessarily recommended that L. P. gas be drawn through openings in the bottom of the storage tanks. Withdrawal is made both through bottom connections and through connections in the top. Probably more installations draw from the top than through the bottom.

The mud you mention is not ordinarily encountered in this country. However, if needed, the "dip tube" which is normally used to draw liquid through outlets in the top of the tank could be cut short and not extend all the way to the bottom of the tank. If the connections are made for withdrawal of liquid through the bottom of the tank, then an extension could be made from the bottom connection up into the tank a few inches.

Perhaps it would be best to install a filter in the line through which the L. P. gas enters your storage, the filter to be so designed that it could be easily removed for cleaning or renewal of the filter element.—Ed.



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## COMMENT

**S**POT shortages of tanks and other equipment are beginning to show up as a result of government restrictions on production of goods which require metals used in the defense effort.

No calamity reports have been received yet but some dealers are worried over possible inability to obtain as many systems as they can sell this year.

It is to be hoped, however, that as stocks shorten sufficient pressure can be exerted on Washington to obtain needed allocations.

The shortage of fuel in some sections this winter has been more real—so much so that legislatures in several LPG-producing states will be petitioned to enact laws which will prevent out of state shipments of fuel until the local needs have been supplied.

One factor which has entered the scene is the more than 25% increased demand for fuel which developed through 1950, with production facilities trailing with only about 17% additional gallonage. And don't forget, there are now more than 8,000,000 domestic consumers clamoring for fuel in addition to commercial, industrial, automotive, and chemical demands.

It also goes back to the economics of production and demand. Refineries and natural gasoline plants must operate on schedules which utilize the

great bulk of all fuel made when it is made. Aboveground shortage is too costly for the producer to provide in order to meet the dealers' mid-winter problems. Neither can the dealer, himself, build adequate bulk plant capacity to care for hand-to-mouth customers who won't safeguard themselves against shortages by purchasing larger tanks.

So the campaign must go on—selling the idea of larger storage for users and filling such tanks in the summer and fall when supplies are plentiful.

Of course, with spring approaching the urgency will lessen and industry leaders will turn again to the more constructive efforts of promoting larger storage facilities, particularly at points of use, and filling customers' tanks before winter sets in.

A 1 to 1 ratio can be obtained in this way when distributors and users work together toward such an end.

The one bright light on the horizon is the feasibility of underground storage which many producers and some distributors have already undertaken and which ultimately may be able to care for the high winter demand.

Stop press item: Washington, D.C.—The government has exempted canned fried worms from price control. OPS said it had found their price has a "trifling" or "insignificant" effect on the cost of living.

When you need dependable  
and fast Butane-Propane service



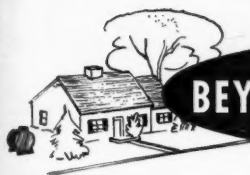
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Reducing T.I.T.\* to a minimum is a specialty of Beacon . . . assuring superior service during seasonal emergencies. By specifying Beacon's streamlined, well-trained organization you get Speed, Skill, and Experience in efficient delivery of Butane-Propane.

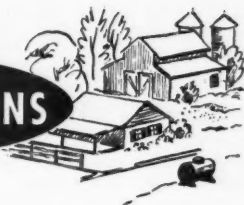
\*Time-in-Transit

**BEACON** PETROLEUM COMPANY

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## BEYOND THE MAINS



**M**ORE than 25 years ago the gas industry became the nation's first self-policing industry with the establishment of the American Gas Assn. Laboratories in Cleveland. Here gas appliances must pass hundreds of rigid tests before they can win the Seal of Approval attesting to their safety, durability and efficiency.

The requirements governing these tests are accepted by the American Standards Assn., Inc., the National Bureau of Safety, the National Fire Underwriters Assn. and other national organizations.

As an example of the thoroughness of these tests, domestic gas ranges must pass more than 500 individual tests before they are awarded the Seal of Approval of the American Gas Assn. Laboratories. More than 90% of the gas ranges sold today carry the Laboratories' seal.

Texas is worried because, it is claimed, certain interests are re-organizing to renew an old fight to keep commercial trucks off the highways. The state legislative chambers will be the battleground.

So serious a situation appears that a special meeting of the Texas Butane Dealers Assn. directors was called recently to formulate plans to aid in combatting any such legislation.

In a state of such vast distances to be covered by transports and tank

delivery trucks, the dealers' very existence depends upon adequate highway transportation.

Accidents not only injure people seriously sometimes, but they cost money. It is foolhardy not to take every precaution. An evidence of how careless some people can be is referred to in a recent bulletin of the Kansas LP-Gas Assn. where it is recounted that one LP-Gas user inflated his tractor tires with propane, adding that not only is propane harmful to tire rubber but high temperatures may create bursting pressures within the tires.

It isn't enough just to tell your customers not to mis-use gas in this way, it is stated, but it is the dealer's responsibility to educate his customers on the proper handling and use of LP-Gas, especially since 100,000 farmers or more are now filling their own tractor tanks on their farms. You should make certain that if a user has an accident, it is because he is unredeemably careless and not because you have failed to perform your duty in explaining the characteristics of the fuel and how to handle it.

Now comes new competition—not only for gas but all other fuels, as well.

It's a "pocket stove"—no bigger than a man's shirt pocket and weighing less than a cigarette lighter. Yet,



it will fry an egg in three minutes or boil a cup of coffee in eight minutes.

**And it sells for only 75 cents!**

It will serve sportsmen in the field for making a hot drink or heating a can of soup; it will warm the baby's milk while one sails along in the family car across the country; or sterilize a doctor's instruments under emergency conditions.

The stove is heated by a small chemical pellet—non-poisonous, colorless, odorless—which can be extinguished and relighted until consumed. Five of these sell for two bits!

It probably wouldn't be feasible to try to connect the stove up to the family propane tank for permanent use but it shows that somebody is always trying to develop competition.

“Modern” is one of the trickiest words in the English language. It may be used to convey the impression of superiority, and to produce the desire to buy, when the salesman does not wish, or does not dare, to present the competitive facts.

The electric utilities depend heavily on the idea that “electric cooking is the modern way.” Coupled with the aggressive selling program developed by that industry's high powered merchandising specialists, they have been successful in getting into many of the nation's kitchens.

Neither the electric company's salesman nor the customer can prove that an electric range is any more “modern” than the automatic-pilot gas ranges which are available at your showrooms. It is not a bit more convenient, and in some respects it is less so. Isn't a pipe as convenient a conveyor of heat as a wire?

Gas ranges still offer these advantages, which are unassailable when all of the facts are down:

They heat up faster.

They provide better control of cooking heat.

They are not affected by power failures.

They cost less to operate.

They cost less to buy and install.

Aggressive selling based on facts can always win out over equally aggressive selling based on mythical and indefinable ideas like “modernity.”

In an era of organization and unrest, labor problems do not appear to be among the major headaches of the L. P. gas distributing industry. On the other hand, the evidences of loyalty and of effort above and beyond the requirements of duty show up in almost every organization in times of emergency.

It is not strange that employees would rather have it that way. It is only strange that a few employers overlook these obvious truths—that employees want to be loyal, and that paychecks alone, no matter how large, do not buy loyalty.

Good pay is necessary to provide the physical comforts and the family security which constitute the economic foundation for good employee relations. But the needs of man go beyond the body. Pay must be mental and spiritual as well as in the form of cash. A man must know that his personal worth is recognized; that his extra efforts are appreciated; that he is important as part of the team. Otherwise, he cannot be happy on his job, nor can he give that which every good employee wants to give.

The highest obligation of the manager to himself and his company is to cultivate a friendly, understanding, and appreciative attitude toward “the help,” and to implement that attitude with both words and deeds.

Only labor can be bought for cash. Loyalty must be earned.

# Two-Way Radio Boosts Revenue, Reduces Operating Cost

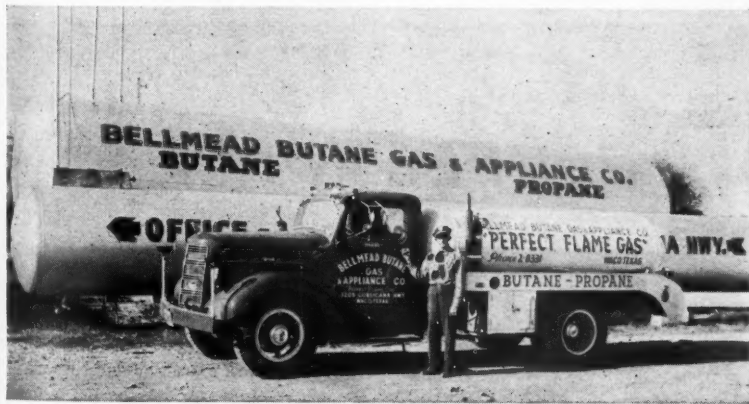
By GENE CREIGHTON

**E**XPENDING \$4000 for a complete radio-telephone system, linking seven of its 11 service vehicles with the central office, is termed "the wisest investment I ever made" by Joe Farrar, owner of Bellmead Butane Gas & Appliance Co., Waco, Texas.

The five-year-old Bellmead organization, with headquarters two miles south of Texas City, which has a population of 125,000, serves a huge territory comprising 2200 gas customers within a 40 mile radius of the city. And one of the

primary reasons for the company's progress is the ultra-modern, down-to-the-minute linkage between drivers and central office, which the long-range radio system maintains.

Let A. G. Oswald, general manager of the firm, sum it up. "Radio communication has made an incredible difference in the success of our operations," he said. "So much so, that in looking back, we



Bulk delivery truck at company headquarters near Waco, Texas. The truck and all other transportation units of this company are equipped with two-way radios.

wonder how it was ever possible to get by with such antiquated methods as merely having drivers phone in at regular intervals, after completing installations or deliveries. Almost immediately after the system went into effect, we found that we could bring about economies in everyday operation far beyond original anticipation, and that we could bring in consistently better revenue per man-hour expended, with an amazing reduction in operating costs. Our radio system has amortized itself as rapidly as any real asset listed by the firm, and by and large, we recommend it enthusiastically to any liquefied petroleum gas dealer whose territory covers a wide-scattered area."

Bellmead Butane Gas & Appliance Co., which recently added an

additional showroom at the headquarter's building merely to handle the additional heating and appliance business which the radio-telephone system has created, maintains two large bulk plants in the Waco vicinity, one of 18,000-gal. capacity, and another of 6500 gals. Included in the rolling stock are 11 delivery tank trucks, pickups, a winch truck, and a station wagon, of various gallonage and sizes. Seven of the vehicles have been radio-equipped since mid-1949, when the company experimented with its first installation, and upon finding the results good, took out a Federal Communications Commission license.

Equipped with the two-way radio system are four delivery trucks, two pickup units, and a



heavy duty stake body, with a hydraulic lift gate, used for heavy equipment delivery. The driver of each vehicle carries his own FCC license for transmitting and operating a radio system, and is in constant touch, either with the big transmitter and control board in the company office, or with President Farrar who has complete receiving and transmitting equipment in his own station wagon.

The dividends which the system has paid are legion, according to Mr. Oswald. "Although we schedule our deliveries as closely as possible, to correspond month to month, there are emergencies cropping up every day," he said. "For example, a housewife may telephone in to state that she needs gas, but that

she has just seen our delivery unit pass by. By immediately transmitting a pre-coded message to that driver, we can stop him in his tracks, often before he is 200 yards away from the house, and back him up to deliver the needed gas before proceeding on his way. The cost of a special trip is of course, eliminated, and the result is a well satisfied, thoroughly pleased housewife. Whenever emergencies of other natures crop up, it is a simple matter to get in touch by radio-telephone with every driver in a given area, determine which is closest, and dispatch him on his way to handle the problem, with no delay whatsoever."

Use of radio direction is by no means confined to gas delivery only, the Texas butane-propane dealer



Bellmead Butane Gas & Appliance Co. features its "Perfect Flame" slogan on its large transports.

emphasized. The company currently is selling around 25% of its total yearly dollar volume in appliances, much of which is likewise traceable to the radio-telephone system. Drivers, out in the territory, when they find interest on the part of a housewife in a particular appliance, but are hazy as to specific details, price, etc., need merely pick up the microphone, call the office, and the information is instantly relayed back. "In fact, we have even had cases in which the prospect was put on the microphone and Mr. Farrar or I, or a company salesman, would tackle the selling job over the air," Mr. Oswald grinned. "The unusualness of the situation can easily be pictured—a farmwife, standing beside the truck, microphone in hand, having all of her questions about an appliance cleared up by a salesman in the office, perhaps 25 miles away, actually looking at the appliance he is suggesting to her. The dramatic possibilities may be well appreciated, and we have actually

made a lot of sales just that way."

Frequently, the novelty of using radio transmission from an appliance showroom, and knowing that "the boss himself" is "on the air" has been enough to break down a customer's stubborn resistance to buying heating equipment, appliances, etc.

Naturally, a few problems have cropped up in operating so large a radio-telephone system. One of them has been service, which is now handled by an expert Dallas representative of the radio equipment manufacturer, to whom Bellmead Butane Gas & Appliance Co. cheerfully pays \$100 a month for a thorough preventive maintenance check of the system once per month. Likewise, it was found that "the frequency was jammed" now and then with too many messages being relayed at once over the same frequency. Consequently, a radio-telephone code has been developed, by which the driver need only transmit cryptic messages, such as "B-1," which means "Customer is listening, watch out!" Code symbols have been built up for every possible operation the truck may carry out, and this saves a lot of effort.

Perhaps the most peculiar feature of the Texas L. P. gas dealer's radio-telephone system is the "sunspot" season which occurs each year. During such atmospheric conditions, the Texas radio system regularly picks up radio-telephone dispatching by a California highway transport concern, which often comes in loud enough to drown out the company's own messages—al-



Interior of appliance display room which was recently doubled in size. Joe Farrar in foreground.



Hydraulic gate for ease in loading and unloading cylinders and tanks which has paid big dividends for Bellmead Butane Gas & Appliance Co.

though it originated more than 1500 miles away.

Lastly, of course, the two-way radio system has solidly solved, once and for all, the "service goodwill problem." Should there be a sudden emergency need for service of any sort, a truck already out in the area is sent to the site immediately. Much public goodwill has been earned, due to the fact that the system has been used to notify the sheriff's office, hospitals, etc., of accidents which have occurred, and are spotted by a radio-equipped truck. "It is the most valuable business-building asset we have ever encountered," Mr. Oswald summed up.

Tremendous saving in both time and expense have been the result of adding the new hydraulic lift-gate-equipped stake truck to the rolling stock of the company.

Mr. Farrar credits the handy unit with sharp reductions in delivery costs, in repair operations,

and in appliance handling, since its introduction to everyday operations. The Bellmead firm regularly installs tank systems up to 1000 gallons capacity, which, under normal circumstances, and with standard truck equipment, require the services of three men, a winch, wooden horses or slides, etc., to handle. With the combination of rubber-tired dollies, and the hydraulic lift-gate, one man, or two at the most, can handle the same job in less than half of the former amount of time.

The Bellmead heavy duty unit is a 2-ton Chevrolet truck, with lift-gate equipment which has a capacity of 2000 pounds.

Bellmead Butane Gas & Appliance Co. has pioneered the use of butane gas as farm tractor fuel, during recent years, and reports that a heavy delivery load slated for tractor operators has particularly pointed up the value of the lift-gate truck.

# Don't Be A "Scatter-Gun" Salesman!

## WHY PROSPECTS BUY

Pride of ownership.

Economy.

Pleasure.

**A** BEGINNING salesman often thinks that people buy LPG tanks and appliances simply because they want them. If the salesman gets a cold shoulder at one house he rushes on to the next, believing that he will find a hot prospect if he calls on enough people. This type of salesman usually lasts no more than two or three months.

The majority of those who sell try to persuade prospects to buy. They cover a long list of selling points to bring out favorable features of their products. There is belief that the more said about their merchandise, the greater the possibility of a sale. While most salesmen can be placed in this category, they are not good salesmen. They are doing "scatter-gun" selling. Here's why:

Every prospect, from the worst to the best, has a reason for wanting to buy. That reason must be appealed to and magnified in the prospect's mind before the sale can be made. Why bring out all the selling points? Ascertain the one

dominant reason for buying and appeal to it. Confirm it, elaborate on it, and glorify it. In other words, try to sell the prospect for the same reason he is most likely to buy.

## Three Buying Motives

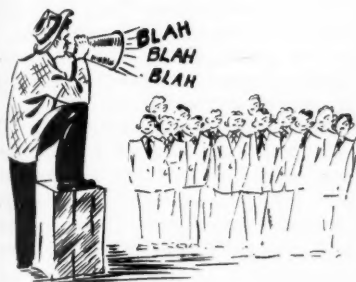
Much has been said about why people buy things. Some say that products are purchased because of what they will do for the purchaser, which is true. Others rightfully claim that fear of loss and the desire to gain are behind every purchase. Still others contend that vanity, the craving to be important or to "keep up with the Joneses," is a vital factor. My own experiences as a salesman of systems and appliances brought me to this conclusion: There are three reasons why your prospects may buy. Those reasons are Pride of Ownership, Economy, and Pleasure.

These should be easy to remember, because their initials spell the word "pep." I suggest that a salesman learn which of these buying reasons or motives is greatest in the mind of his prospect and that he then appeal to it. Convince each prospect that he should buy for the same reason he is considering the purchase.

In scatter-gun selling a wide va-

**By BILL N. NEWMAN**





There is the belief that the more said about merchandise, the greater the possibility of a sale.

riety of selling points are mentioned in hopes that the reason for buying will be covered. In scientific selling the one main reason for buying is determined and used to good advantage.

The question now arises as to how the salesman can determine a prospect's reason for buying. In many instances the type of merchandise being considered discloses the reason for buying. For example, a wrench is usually bought for its utility. To sell a wrench you have but to mention its many uses. A bottle of iodine or a burglar alarm is bought for the protection its user receives; here the salesman should stress protection. A box of candy is usually purchased so that it will give pleasure to someone. The alert salesman tells the prospect what a nice gift the candy will make. While many other good things could be said about the candy, nothing will sell it as fast as confirming the prospect's idea that it might be a suitable gift. In the case of L.P. gas systems and

appliances, however, there is no one reason for buying that fits every prospect.

Wouldn't it be wonderful if each prospect would tell you why he is most likely to buy? Believe it or not—the prospect often does. The difficulty is that most salesmen fail to recognize the buying motive when they hear it. Many statements made by prospects can be interpreted as clues to the reasons for buying:

### Pride of Ownership

"We've been admiring our neighbor's new gas system and appliances, and we've been thinking about getting something similar." A statement of this sort is a definite clue to the buying motive. The prospect is telling you that he wants to keep up with his neighbor, that he wants to "keep face" in the community, and that if he buys he will do so in order to be the proud possessor of an L.P. gas system and all that goes with it. He told you, if you bother to interpret it, that Pride of Ownership is his reason for contemplating the purchase.

To capitalize on his clue you must let him know how proud he can be of what you are trying to sell him. Let him know there is none finer, if such is the case, and that others will envy him. Also, it's no problem to sell this particular person some appliances that are better than those bought by his neighbor.

The same clue might be given in another way, even in the form of a question. "Is this the same range you sold Mrs. Hightower on Park



"Pride of Ownership."

Road?" There again you have a prospect who is telling you how to sell. You should know from that question that Pride of Ownership is behind the tentative purchase. Elaborate on how proud she will be of the range, and she will buy it.

Other clues to the same buying motive are, "We're building a new home, and I've been thinking about getting a new refrigerator," or "We're redecorating our kitchen; I hate to use our old range in it."

*Have you ever heard people brag? The desire to be "somebody" or to be important is a basic urge. It causes us to talk when we should be listening, put up false fronts, boast about how much income tax we pay, exaggerate, day dream, want our names in newspapers, and buy fine things. Some people want not only to keep up with the Joneses; they want to be the Joneses for others to keep up with.*

#### **Economy**

The second reason your prospects have for buying is Economy. No one says you can sell him if you prove how economically he can heat his home with L.P. gas, yet many will suggest it. They will say, "Our

electricity bills have been so high that we've thought of using gas," or "Is it cheaper than oil?" A frequent question is, "How much does it really cost to operate?"

On receipt of such a clue a good salesman knows what to do. He confirms the prospect's thought that L.P. gas will save him money. At least two or three times during his sales presentation he tells how economical the fuel is. Without stretching the facts, the salesman should compare the cost with that of the fuel now being used by the prospect. While other advantages of gas and appliances may be brought out, the salesman knows that Economy is what rings a bell with this prospect. As a result, the prospect is persuaded to buy for the same reason he considered the purchase—Economy.

If we dig into the background we



"Economy."

find that the desire to save money is an outgrowth of the first law of human nature, the law of self-preservation. Everyone tries to keep safe from harm and to perpetuate himself. In this civilization only those with some degree of financial security can feel safe. Money has become a necessity. "I will let another in my heart but not in my pocket." When you show a prospect how he can save money you are indirectly appealing to his greatest instinct, the law of self-preservation. If an Economy clue is given, make the most of it.

### Pleasure

A third major reason for buying your particular products is the Pleasure the user experiences from convenience and comfort. Here again the prospect does not declare that Pleasure of use is the thing you must stress, but he hints at it. He says, "It's so much trouble to use wood," or "Kerosene is so messy," or "I surely get tired of having to heat every drop of water that we use." Each of these is a clue to the buying motive, Pleasure.

When you receive a comment of this sort you have but to join forces with the prospect. Confirm what he is already thinking. Sometimes the pleasure afforded by an individual feature, such as a waist-high broiler or an automatic timer, is the key to the sale. It can be revealed by the prospect's simple comment, "If I do get one, I want to be sure the broiler is not under the oven."

Billions of dollars are spent each year because people want Pleasure. In addition to entertainment,



"Pleasure."

money spent for goods that eliminate nuisance, trouble, time, or effort is spent because of Pleasure. This buying motive is relative, however, in that the equipment or system now being considered must be a Pleasure to use when compared to that currently owned by the prospect. To take full advantage of the Pleasure motive it is often necessary to question the prospect regarding the equipment he is using at the present time.

"What kind are you using now, Mr. Jones?" "Is it an old one?" "Does it smoke up your kitchen?" "Does it have enough ice trays?" The answers to questions like these let you know where the prospect is vulnerable. They disclose whether Pleasure is a strong reason for buying and, if so, in what way you can best enlarge on it. In any event, do not discount Pleasure.

Can a prospect have more than one of these three main reasons for buying? Yes. By listening to what is said and asking a few of the right questions, the salesman can

# Clues To Buying Motives

## **Pride of Ownership**

I want a good one.

Is it the best you have?

Is this like the one you sold Mrs. Hightower?

We're building a new home and want something that looks nice.

Is it the latest model?

I've been admiring my neighbor's new range, and ...

## **Economy**

Does it cost as little to operate as people say?

We're using coal, and it's certainly expensive.

Our electricity bills have been so high that ...

How does it compare in cost with wood?

I've heard that the tank will pay for itself.

Is it much cheaper than oil?

## **Pleasure**

It won't smoke up the walls and ceilings, will it?

We're using kerosene, but it's so messy that ...

I surely get tired of cutting wood.

Does it have a pilot light?

That coal is a nuisance!

I like gas because it's quick and clean.

usually learn whether a second motive exists and to what degree it will influence the sale. When two motives are apparent the salesman has twice the opportunity to sell. He has two ways to sell, because the prospect has two reasons for buying. Appeal to both motives—do two fisted selling. It's hard to miss with this kind of prospect.

In a recent year it was reported that one million  $\frac{1}{4}$ " drills were sold. These were not bought because people wanted one million  $\frac{1}{4}$ " drills; it was because people wanted one million  $\frac{1}{4}$ " holes. Yes,

merchandise is purchased for what it will do for the purchaser. Unlike  $\frac{1}{4}$ " drills, though, L.P. gas systems and appliances do different things for different purchasers. They give Pride of Ownership to some, Economy to others, and Pleasure to a third group of purchasers. Each prospect will say, or can be prompted to say, which of the three things he is looking for. When you hear what he wants done for him, jump on it! Pin-point your sales fire toward the bull's eye. Scatter-gun selling seldom hits the center of the target.

# How to Prevent Regulator Freeze-Ups

**R**EGULATOR "freeze-ups" still occur. They lead to customer dissatisfaction, costly service calls, and annoyance for everybody concerned. Yet with proper cooperation between the plant operator, the serviceman, and the deliveryman, they are avoidable.

We repeat—there is no need for these service interruptions. Regulators will not freeze if there is no water present in the customer's tank.

## Careless Handling, One Cause

Freeze-ups come from moisture in the fuel. This moisture was not necessarily in the fuel when it left the plant where it was produced. While "wet" fuel is still occasionally encountered, it is becoming more and more unlikely with the adoption of improved dehydration processes by the producers. Most of the water which causes freeze-ups gets into the fuel through bad practices or just plain carelessness, somewhere between the point of production and the consumer's regulator. Most frequently, troublesome amounts of water come from some combination of the sources described in the paragraphs which follow.

There may have been water in the tank when it was installed. All L.P. gas tanks must undergo a hydrostatic test before they may be used for the storage of fuel. In this test they are filled with water and

By **CARL ABELL**

subjected to high pressure. (API-ASME code vessels test pressure is  $1\frac{1}{2}$  times the working pressure. ASME test pressure is twice the working pressure.) After the test water is removed, the inside of the tank is still wet. Some tank manufacturers put their tanks through a drying oven or heat treat them which evaporates this water. If the tank is not heated but instead is blown out with dry air, there is very little chance that a troublesome amount can remain. However, if moisture-laden air is used, condensation may take place after the tank cools off. Large bulk storage tanks cannot be effectively purged of water (unless they are heat treated), and may contain quarts or even gallons when installed. Even ICC cylinders may contain small amounts of water when new, unless thorough precautions are taken for its removal.\*

Even though a tank may be quite dry when it leaves the factory, standing empty prior to installation may allow it to breathe in moist air, from which moisture may be condensed in quantities sufficient to cause trouble after it is filled with fuel.

\*Denatured alcohol should not be used as it may cause corrosion of metal parts.

**TABLE 1. AMOUNT OF WATER WHICH MAY BE ABSORBED BY LIQUID FUEL IN A FILLED PROPANE CYLINDER OR TANK.**

	32°F		60°F		80°F		100°F	
	lb.	cu. in.	lb.	cu. in.	lb.	cu. in.	lb.	cu. in.
100 lb. cylinder	.006	.177	.016	.444	.029	.806	.049	1.36
100 gal. tank	.025	.700	.068	1.90	.123	3.42	.207	5.70
250 " "	.064	1.78	.178	4.95	.306	8.5	.518	14.4
500 " "	.127	3.52	.338	9.4	.613	17.0	1.04	29.0
1,000 " "	.254	7.05	.677	18.8	1.23	34.2	2.07	57.5
5,000 " "	1.27	35.2	3.38	94.0	6.13	170.0	10.36	288
10,000 " "	2.54	70.5	6.77	188.0	12.27	340	20.73	590

Any water which remains in these tanks will gradually be absorbed by the fuel. Completely dried propane can also be contaminated with water that has accumulated in tank cars or transport tanks which have carried a wet product. Rain or snow, trapped in a valve connection or a hose, may get into the tank during filling. Small amounts of water may get into cylinders while being connected to the pigtail, from water-soaked gloves or even from wet hands.

Water from any of these sources does not necessarily go to the bottom and stay there. Liquid propane is capable of absorbing small amounts of water. Not a great deal, but it remains saturated, as indicated in Table 1, as long as there is a source from which it may pass into solution in the fuel. Propane gas, however, can absorb several times as much moisture as liquid propane. (See Table 2.) Since this is the case, water lying in the bottom of the tank will slowly travel through the liquid fuel into the vapor at the top of the tank, in a

ratio varying directly with temperature.

It has often been observed that storage tanks installed during the spring and early summer are far less likely to produce freeze-ups than similar tanks which are placed in service in the fall or early winter. The explanation of this peculiarity is contained in the preceding paragraphs. The moisture contained in the tank which has been in service through the summer has had a chance to dissipate through the liquid fuel, and to pass out with the vapor while the temperature at the regulator has remained above the freezing point of water.

Unless additional water is brought in with the fuel, there will be no freeze-up trouble with this tank. The new tank that is installed late in the season, when the atmospheric temperature may drop into the range between 40°F and 32°F, is likely to develop a freeze-up unless steps are taken to prevent accumulation of water in the critical zone near the regulator nozzle.

Freeze-up trouble starts to occur,

as previously indicated, when the outside temperature is in the range of about 10 degrees above freezing. It comes from the formation of ice at the regulator nozzle, or in the few inches of tubing at the entrance to the regulator. The expansion of the moisture-laden fuel vapor as it passes through the regulator nozzle causes a refrigerating action, which sometimes condenses a certain amount of the fuel in the line immediately ahead of the nozzle. Since the liquid fuel cannot hold as high a percentage of absorbed moisture as does the vapor, some of the water condenses with the vapor and separates from the liquid. It freezes to the metal parts, the temperature of which has been lowered below the freezing point. Ice may continue to accumulate in this cold zone as long as the local temperature of the parts near the regulator nozzle is below 32°.

In some cases the ice may form on the seat of the regulator, causing it to stick to the nozzle periodically, and resulting in a wild fluctuation of the line pressure on the

downstream side. Or it may accumulate ahead of the nozzle, gradually obstructing the flow, and sometimes completely closing the passage.

Temporary relief from freeze-ups may be had by thawing the ice out of the regulator and the pigtail with warm water applied directly or wrapping with cloths, but this is just "something to do till the doctor comes." A permanent cure can only be had by drying out the regulator or immediately replacing it and the connector (pigtail) with clean, dry ones and taking the necessary steps to prevent further freezing, as outlined below.

Extra regulators and connectors should always be kept dry, whether in storage at the shop or on the service truck, and not allowed to get wet while installing them.

#### Functions Alcohol Performs

Customer storage tanks are seldom equipped with draw-off cocks for the drainage of water, so any water which is in the tank must be treated to prevent further freezing. The customary procedure is to inject methyl alcohol into the tank. Alcohol is hygroscopic—it has the ability to absorb water. It dries out the fuel, and it also lowers the freezing point of the water, just as it does when used as an anti-freeze compound in a car radiator. Full-proof (100%) alcohol should be used so its injection will not carry additional water into the tank. The amount customarily recommended is one pint per 100 gallons of fuel. It may be injected into the tank by pouring it into a delivery-truck

TABLE 2.

Percent Water in the Vapor = "a"	
Percent Water in the Liquid	
Temperature	"a"
40	8.3
50	7.1
60	6.2
70	5.6
80	5.0
90	4.5
100	4.2



hose and flushing it through with fresh fuel. An injector pump or an adaptor interposed in filling line may be used. Unless the atmospheric temperature gets down to approximately the freezing point of the alcohol-water mixture, no further difficulty need be expected from a tank so treated, but as the alcohol evaporates, this operation must be repeated every time the tank is refilled.

If the freeze-up occurs in a cylinder system, the best policy is to return the cylinder to the plant, where it may be emptied and purged. All such cylinders should be tagged so the plant operator will not overlook the necessity of a thorough clean-out before refilling. (It is also advisable to tag and dry out any empty cylinders which may be found with the valves open, as it is possible for such cylinders to accumulate moisture from breathing and condensation.)

Some dealers have obtained good results with small line dehydrators installed between the tank and the regulator.

#### **Keep Connections Capped**

It is always better to prevent trouble than to cure it after it has happened. This requires care at every step along the line where contamination with moisture may occur. Operators should keep the POL connections of all cylinders capped when not connected to the service line to prevent accidental entrance of water during wet weather. This is also good because it keeps out dust and other foreign matter which could damage valve seats and regulator parts.

Unless they are known to be dry, new customer bulk tanks should be given a liberal dose of alcohol at the time of installation. Filler valves of bulk tanks should be equipped with caps, and they should always be on the connections except when fuel is being transferred. Hose and valves should be protected on bulk delivery trucks so that water and snow cannot enter. Likewise, when transferring fuel into or out of bulk plant storage tanks, all connections should be kept dry.

#### **Unloading Hose Can Be Medium**

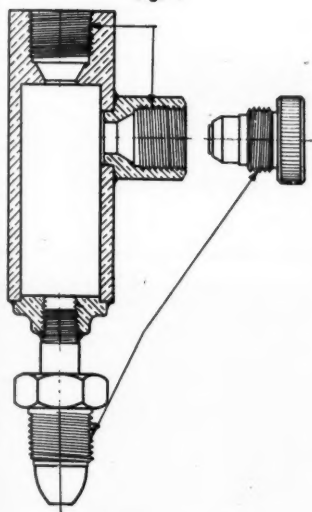
Many operators inject alcohol into their bulk plant storage tanks with every delivery of fuel by pouring it into the unloading hose and pumping it through with the fuel.

Injecting alcohol into the bulk storage tank offers protection against another cold weather hazard in areas subject to very low temperatures. Freezing of water in any valve at the bottom of the tank would be quite likely to distort the valve, making it unsafe and requiring emptying of the tank to make a replacement. Thus, the anti-freeze protection can be very valuable.

In some bottled gas operations where fuel is not treated in the bulk storage tank, alcohol is injected into the cylinders as they are filled. (A special injection adapter for this purpose (See Fig. 1) is manufactured by the Bastian-Blessing Co.)

While the only absolutely certain way of insuring freedom from freeze-ups is to prevent the pres-

Fig. 1



Alcohol injection adapter.

ence of water in the fuel, there are certain mechanical means of rendering them less likely to happen. Some engineers recommend that the regulator should be mounted higher than the tank, with the fuel supply line sloping back to the tank so any condensed liquid has a chance to drain back to storage. This is believed to narrow the temperature range in which freezing can occur in the line.

#### Other Precautions Possible

Another precautionary measure which reduces but does not entirely eliminate the possibility of freezing is to install two regulators in series, thus providing a lower pres-

sure drop at each regulator. In some industrial installations where large quantities of fuel are withdrawn, this same idea is carried still farther by installing two primary regulators in parallel. With the lessened expansion at each regulator, the time that it may remain in the critical temperature zone is materially reduced.

Using a larger regulator is another means of preventing excessive temperature drop at the orifice, and larger diameter fuel lines provide further security by allowing for more icing before the flow of fuel is impeded.

While all of these precautions help, the only sure means of preventing freeze-ups is to keep water out of regulators. This requires headwork, and the exercise of precautions at every step of handling fuel and installing equipment. It can be done. Many operators in the most susceptible areas are not having freeze-up trouble.

### Pennsylvanians to Take Part In March Builders' Show

L. P. Gas dealers of Eastern Pennsylvania and the eastern Pennsylvania gas utilities again will sponsor a joint, all-gas cooking school during the Central Pennsylvania Builders' Show.

The event, scheduled for March 3-8, is reported to be the largest builders' show in the country. According to A. C. Horner, Harrisburg, Pa., chairman of the promotion and advertising committee of the L. P. gas dealers, the cooking school is unique in its co-sponsorship by LPG dealers and gas utilities.

# All in a Day's Work...

By DAVID MARKSTEIN



7 a.m. An L.P. gas dealer—like the farmer whom he sells—must start his day early. Mr. Phillips' first act is to pass on prospect leads to salesmen going out to beat the bushes for new business in surrounding territory.



9 a.m. The calls come in. Mrs. Smith would like prices on changing from coal oil to modern LPG. Mrs. Jones has trouble. Mr. Phillips likes to keep his fingers on the customer pulse by taking many calls personally.



11:30 a.m. Here's a drop in appliance prospect. With the regular sales force out on the road, Mr. Phillips takes over, making the sale of a modern LP range by pointing out competitive features and advantages.

**A** DEALER, according to Webster, is "one who deals, a trader, a merchant." That terse definition doesn't begin to cover all of the activities and responsibilities of a modern dealer—if he happens to be an L.P. gas and appliance dealer, at any rate—according to a man who should know. He is Ed F. Phillips. Mr. Phillips, as manager of sales, service and nearly everything else for General Gas Corp. in the wide territory fanning out of New Orleans, La., points out that a successful L.P. gas dealer today has to be a selling and sales promotion specialist, expert in customer relations, complaint adjuster,

service supervisor, industrial engineer, credit authority, and fleet manager.

Operating as head of a big-territory branch that has around 18 employees, including five full-time salesmen, office employees, and two installation crews, Mr. Phillips' setup includes five gas transports and two service trucks. His problems are seasonal—in



1:00 p.m. Out to lunch and on a round of calls. Mr. Phillips tackles the adjustments and complaints personally, believing that a satisfied customer is General Gas Corp.'s most valuable asset.



3:00 p.m. until ??? Mr. Phillips passes on service call to close satisfactory adjustment handled on his outside trip, clears up other details to line up afresh for start of another day tomorrow.

the cold months, he concentrates attention upon his present consumers; during warm weather he goes after new business in the form of tractor conversion to use General "Atomized" butane-propane mixture.

The accompanying picture sequence illustrates what goes on in a typical working day in the business life of a dealer whose functions go far beyond the simple dictionary definition to be found in Mr. Webster's best-selling book.

# Reduce Your Accident Rate

## To Reduce Insurance Cost

A GOOD, practical and responsible safety program and accident prevention plan can do much to reduce operating costs for the butane-propane dealer and create good employee and public relations.

Recent studies indicate that small businesses (under 100 employees) employ half of the nation's workers but the accident frequency rate, or number of disabling injuries per million man-hours worked in these business places, is more than double that of large plants.

### Indirect Costs Are High

Taking a long-range view of the subject, accidents frequently represent a great deal more in losses to the employer than direct costs of compensation and medical expenses. The indirect cost is quite often larger than direct expenses and includes labor loss, material loss, property loss, time lost by injured employee, time lost by fellow employees, and unearned wages paid to injured employee.

Thus, it is not unusual for organizations with high accident rates to discover suddenly that direct costs in accidents amount to but about 20% of the total loss.

The discoveries big business has made in labor relations are not, contrary to beliefs too readily held by small business, practical for use in large operations alone. Morale is improved in workers who develop confidence in their employer's interest in their safety. Turnover is reduced and

with it the cost of training replacement workers.

The frequency rate of accidents has been considerably reduced in larger plants with active safety programs. Yet the same reductions may be made in smaller industries without the employment of safety specialists.

### Small Business Program

A practical program for small business would include the following safety measures: Machine guards and personal protective equipment, good housekeeping, effective poster displays, effective first-aid service, injury reports and records, safety instructions and maintaining interest in accident prevention.

On one hand it has been seen that workmen's compensation insurance does not cover the employer against all losses, yet the plant that reduces its accident rate can materially reduce its insurance rate.

The insurance carrier is the most convenient source of information on carrying out accident prevention programs under the employer's specific set of operational circumstances. In addition the insurance companies provide forms, charts, employee education material and posters—among other vital services.

An accident prevention booklet recently published by the National Safety Council, 425 North Michigan avenue, Chicago, may be obtained upon request and will prove an invaluable aid to the dealer in mapping his accident prevention program.

# Your Serviceman

## Is Your Best Good Will Ambassador

By F. E. KEE

Oklahoma Natural Gas Co., Tulsa, Oklahoma

IT is a good thing for us to find out what we are doing for our customers—and why. Too often we allow ourselves to become creatures of habit, going along day after day without finding out why the other fellow does what he does and acts as he acts.

There has been more talk about public relations and less real work done about it than anything I know of. If we would stop thinking so much in the terms of getting the customer's good will and put forth more real effort in giving him good service, with courtesy and friendliness, good will will take care of itself. Think less of getting and more of giving, and your customers will respond more nearly as you would have them.

We are all in business to succeed—

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The greatest unheralded source of good will and new appliance sales is the dealer's serviceman, says F. E. Kee in the accompanying digest of a paper he delivered before Oklahoma and Kansas dealers.

The serviceman has the most intimate and most frequent contact with present customers. If he is well trained and well instructed he can lay the foundation for continuing friendship and new business.

Use this article as a measuring stick for your own operations and your own opportunities—Editor.

to succeed for the satisfaction of accomplishment, to serve our neighbors and community, to improve our families' security, to make money.

What makes a customer respond in a friendly way? What do we need to do to cause the customer to respond in a friendly way? What do we need to cause the customer to respond the way we want him to?

Suppose you decided to go into business for yourself. You choose the location with a great deal of care. You are very particular about the decorations and furnishings and the stock of merchandise you will carry. You put in several weeks getting this all done, front painted and trimmed to look its very best, show windows made attractive as you can make them, all merchandise displayed to very best advantage. Everything is in order, then comes the day of your grand opening. You are in the store eagerly awaiting the time you will open the door. That time arrives and your very first customer enters. How do you treat that customer? If all of our customers were treated with similar consideration, what do you think would happen?

To desire seriously the favor of our customers and do something about it, we need to do some basic thinking. Who are our customers? What makes them tick? Why do they act as they do? Why do they always seem to



Everybody talks about good  
will but nobody does any-  
thing about it.

want something? Perhaps a little soul-searching of ourselves, some looking into our own actions when we become a customer, will give us the answer. Our customers are people just about the same as we. We are all a bit short on understanding the other fellow's problems. We can see our own perfectly, and to us the other fellow never had trouble like ours.

Service to customers—what is it? How do we regard it? Do we consider it to be a nuisance—something that is just a bother to us—some cranky, unreasonable person wanting special attention? Until we have a real desire

to help our customers utilize our product, we cannot hope for more than average success in winning favorable sentiment from them. Be helpful! Be neighborly if you want people to respond favorably.

### Six Children and a Teakettle

The development of your industry has been a Godsend to large numbers of suburban neighbors and others, too.

I wonder how many of you grew up on a farm as I did where in the morning the first chore was to build a fire—summer and winter, cold or hot. We always ran out of wood at the most inopportune times, we spilled ashes on the floor removing them from the stove, and a teakettle on the top of the stove was the only source of hot water. We went off to work in the morning without carrying in enough wood to last out the day and had trouble with the wife that evening because of it. How many of you have tried rearing 6 children with a teakettle the only source of hot water? Well, that was the condition that existed no longer ago than most of us can remember.

Now, you have given them something their fathers and mothers never dreamed of. You have put a luxury fuel in their homes without exacting a luxury price. Is the customer going to accept it as is and not expect and desire improvement? He is not! American progress has been achieved only through the desires of the individual for improvement, for something better, for more comforts for himself and his family. It is our job to improve our product when possible, to improve present uses and continually to seek new applications of appliances and equipment.

I haven't said much about the fellow I am supposed to talk about—the serviceman, but everything I have said applies to him and to everyone



in the business, from the big brass to messenger boy. A service person is any employee who comes in contact with a customer in any way—in church, around the bridge table, or anywhere they meet. How many times I have been introduced at some social gathering as “Fay Kee with the gas company,” only to have someone get me off in the corner at the first opportunity to tell me his bill is too high or that he doesn’t think he has received proper service in some way or other. No matter where you go, you are your company. The serviceman is the one who goes to the customer’s premises—into the home—and performs necessary work for the benefit of the customer and the company.

The successful serviceman must have some definite qualifications. He must like people in general; in no event should he dislike people in general. He should be courteous by nature and have a sense of humor. He should be a mechanic with some knowledge of science; and, by all means, he

should be a salesman. Generally speaking, he does not sell appliances or our product, but a good serviceman will keep our product or a piece of equipment sold, once it is installed, thereby insuring future sales and pleasant relationships with our customers. If he likes people, he will give the customer every opportunity to explain his request. He will conscientiously endeavor to understand the customer’s viewpoint and desire. He certainly should know when the customer is being facetious and respond with courteous good humor.

His duties require some mechanical skill in making adjustments and repairs to the customer’s equipment. Some knowledge of the science is necessary for him to diagnose special appliance troubles properly. This knowledge includes the simple fundamentals of combustion, heating and refrigeration. His salesmanship usually determines the success or failure of his call. The call where there is real difficulty requiring attention causes a



Bringing in the wood in the old days.

serviceman no trouble. The call where appliances are not out of adjustment and there is no apparent trouble are apt to disturb any serviceman. He either fails rapidly in this kind of call, or he leads or listens in a conversation that brings out the real trouble. With the trouble correctly diagnosed, he proceeds to apply proper treatment, and a good service is done for the customer, himself and the company.

High bill complaints (I suppose you have them) are often a real test of the serviceman. His mechanical skill usually is of little use. He has two sales to make, each involving the customer's confidence in him and his ability. The first is to get the customer to accept, when true, that there are no leaks or waste. Secondly, he gets the customer to realize the true difficulty. Now he must be a good listener. He does not talk too much. His re-



What makes customers tick?

marks must be leading in nature, along the lines of normal use and inquiry about abnormal uses. Friendliness is often the key for a satisfactory settlement of a high bill complaint.

If our servicemen have no time to dislike anyone, if they like our customers and treat them as if they like them, the problem of service will be materially reduced. Customers respond to such an attitude, and if the work is performed right, customers will have confidence in the serviceman and the company. For the serviceman's purpose, there are three parties to every service job: The customer, the serviceman and the company. Each should receive the maximum benefits from each job.

The better the job is done, the more benefits there are to be shared by all. The result of good service work is a customer that is satisfied because he knows that he has been given the best service possible and that that service has been rendered in a manner that is above reproach. The serviceman and the company have merited the confidence of the customer.

Service is more a state of mind, practiced thinking of means whereby your customers will get more satisfaction, more enjoyment from the product you sell. Good service stems from a desire to be helpful to others. If you have a genuine desire to give good service the means of doing will be found. All of us usually find ways to do the things we want to do most. The customer will never have confidence in us or be a booster for us and our product if his requests and complaints are handled with indifference. When we begin thinking seriously about opening a new business—about that first customer, how eager we would be to please and seriously treat every request and complaint! With the same eagerness to please, we will need have no further concern about the good will of our customers.

## Customer Good Will is Reflection Of Dealer's Employee Policies

**B**ENDING all operational efforts of the firm to "keep the customer thinking of us" in a carefully-planned campaign, has worked out so well for Supertane Gas Co., Gulfport, Miss., that gallonage volume has increased an even 50% in three years, according to Hugh Bourgeois, president.

Mr. Bourgeois took over the Supertane organization, which had been the only independent butane-propane dealership in the area for nine years, during April of 1949. Already a successful building materials dealer, he had been frequently called upon to figure costs of installing butane or propane for heating, refrigeration and other uses in structures built away from the gas mains, and in doing so, he developed a strong personal interest in the industry. When the opportunity came to purchase the company in 1949, he consolidated the offices of his two firms, and since that time, has become one of southern Mississippi's largest L. P. gas dealers.

Franchised with Servel, Ruud, and many other leading gas appliance lines, and through sheer good service to customers, Mr. Bourgeois has built his volume in Harrison, Hancock, Jackson and Stone counties to such an extent that it now requires a 6-tank 80,-

000-gal. bulk plant to back it up. Steadily expanding, he has brought efficient, reliable repair, installation and delivery service to a radius of 60 to 75 miles from Gulfport, and is constantly extending even farther. The firm currently operates a fleet of six delivery trucks, in addition to three light-weight service trucks, the latter being considered "our prime merchandising asset" as Mr. Bourgeois put it.

### Had Problems to Solve

In surveying the territory before making the purchase, Mr. Bourgeois was struck with several outstanding facts. First, he saw that Supertane Gas Co. would have to "buck the competition" of several large "chain organizations" operating bulk plants and delivery services in many towns along the famous Mississippi gulf coast resort area. Second, he felt that there was far more potential in LPG appliance sales than had been hitherto exploited. Third, he found many of the existing and prospective customers living in the four counties mentioned above wanted faster service on both delivery and repairs than had been offered in the past.

"Therefore, we started out from the very first to make our name a by-word with gas users through-

out the entire territory," Mr. Bourgeois asserted. "In order to do so, we realized, we would have to make many calls on customers over and above ordinary delivery, sell our service department vigorously on the basis of goodwill and dependability, and lastly, so build up general confidence in the firm that we could depend on first call for either a tank installation, or an appliance sale."

### Every Driver is Trained

All of these factors have been actually developed by the Supertane concern. First, and most important has been the service department, which involves not only trained mechanics and the trucks mentioned above, but likewise the six regular route drivers. With once-a-week classes held in the office building, Mr. Bourgeois has carefully schooled every driver in all details of adjustments and even major repairs to L. P. gas water heating equipment, space heating, refrigerators, and other appliances.

Every driver on the route carries a complete set of tools and parts, and is instructed to spend just as long as is necessary to leave the customer satisfied and pleased, whenever an adjustment or repair need is encountered. All such goodwill-building repair work is carried out without charge, and Mr. Bourgeois willingly accepts the expense of the hours of extra work which may be involved. He has also trained each driver-salesman in maximum courtesy in salesmanship, to capitalize upon a commission plan for appliance

sales, and to put the customer's goodwill first at all times.

To attract the caliber of route salesmen which such a plan necessitated, Mr. Bourgeois cheerfully set his pay scale far above that of most LPG dealers in the area, to the extent that his 1950 payroll was in excess of \$36,000. "We needed the highest type of man," he said. "Therefore, we have set up a sliding-scale commission arrangement, whereby every driver is entitled to try his luck selling appliances, with all the time permitted that may be necessary. With plenty of training in the showroom, demonstrations by factory representatives, public utilities, etc., we have been able to train our men to such a pitch that every single one regularly adds commissions to his route salary, and all men in considerably higher income brackets than the average in our state.

### Never Lets Customers Forget

Two full-time salesmen are on the job for the appliance department, regularly making calls along every route, even though no known prospects are listed. "Keeping the customer thinking of us pleasantly," in Mr. Bourgeois' terms, means regular calls, not only by the driver making his once-per-month delivery, but by the firm's service specialists and by the salesmen.

The "boss," himself, has actually visited each of his customers, whether users of a large tank or a mere bottle exchanger. When a new range or water heater is installed, an expert, factory-trained

service mechanic calls the day after to check it thoroughly, again at the end of the month to make any adjustments which the housewife may need, and once more 90 days later.

In the meantime, there will have been several calls by the salesman who sold the job and by the courteous driver-salesman with his offer to make any other repairs or adjustments. "Our customers are literally flooded with Supertane representatives," Mr. Bourgeois states, "and to date, we have found that they appreciate it."

#### Is Considerate of Employees

There can be no good will from customers unless the dealer has it from his own employees, Mr. Bourgeois said, and thus, in addition to the advantages outlined above, he gives every man considerable operating leeway—just as if the employe was in business for himself. In order that the men will work uncomplainingly during the late evening hours during the peak winter season, he permits each to sign in and take off for the day during the slack summer season, after completing their routes. In other words, should a driver finish by 3:30 in the afternoon, he is entitled to go fishing, relax in an air-conditioned movie, etc., with the boss' blessings. In return, the men are uncomplainingly on the job long beyond the "call of duty" during the peak period.

While these many calls and services are indubitably his finest advertising, Mr. Bourgeois is a regular user of radio spots, six of

which are broadcast per week over a Gulfport station, and also presents a 45-second, gas trailer movie, in full color, at all local theatres. Demonstrating a timely, seasonal appliance, these "trailers" have proven amazingly successful in attracting new customers.

The firm will shortly build a modern and attractive new showroom and office building which, it is hoped, will be the finest in the Mississippi L. P. gas industry.

#### Five Service Schools Already On Schedule for 1952

The Liquefied Petroleum Gas Assn. has announced plans for service schools to be held in various parts of the country during the first six months of 1952.

First on schedule is the Rocky Mountain Empire LPG school to be held at the University of Denver, March 17-19. J. L. Thompson, Denver Propane Co., chairmans the committee making arrangements.

University of Minnesota service school is at St. Paul on March 24-26.

The Midwest service school will be held at Iowa State College, Ames, on April 9-11. C. L. Crippen, Rapid Thermogas Co., Des Moines, heads the school committee.

The University of Kansas, Lawrence, will be the site of the L.P. gas managers' school set for April 14-18. Homer Devault, Darlingas Co., Pratt, Kan., is chairman of the arrangement committee.

The fifth school scheduled so far will be held at Georgia Institute of Technology, Atlanta, on June 9-13. Hermann Paris, Georgia Automatic Gas Co., Atlanta, is committee chairman.

# PRACTICAL MANAGEMENT OF AN LP-GAS BUSINESS

## Chapter 11

### Package or Bulk Sales—Or Both?

**B**EFORE we become too deeply involved in this chapter it might be well for us to have an understanding of certain terms as they will be used herein.

By "package sale" is meant the delivery of liquefied petroleum gas to the point of use in portable cylinders. "Bulk sales" refer to the delivery of gas to the customer by tank truck and into containers permanently located upon the customer's premises. Package sales may be made either with small portable cylinders which the customer transports to and from the dealer's place of business or with larger cylinders which are delivered to the customer and returned to the dealer by the dealer's own truck.

In the preceding chapter, I stated that each type of gas de-

livery service is adapted to some particular segment of the consumer demand. In congested areas, particularly where there are apartment buildings, it is quite frequently impossible to install large cylinders or permanent tanks. Furthermore, quite frequently the apartment dweller is not a large enough user to warrant the investment in large cylinders and regulating equipment which would be necessary if it were not for so-called "self service" or "cash-and-carry" gas equipment. This equipment is designed to be used in connection with small, portable cylinders of approximately 20 lbs. capacity each. Connection to the flex-

**By C. C. TURNER**

ible pigtail is made by means of a wing nut or knurled wheel which does not require use of a wrench. The valve on the cylinder is automatically opened when the pigtail connection is tightened into it, and it is automatically closed when the pigtail connection is removed. The general design of these valves is much like the conventional inner tube valve on an automobile tire.

There are many gas dealers who are very enthusiastic over this type of service. In fact, there are hundreds of dealers who do not have any other type of service. They point out that this service does not involve delivery expense, that it creates store traffic and quite often is the cause of the customer purchasing new appliances or accessories. They also mention that it is easy to keep this class of business on a strictly cash basis.

### Bookkeeping Involved

On the other hand, there are dealers who do not have any use for this type of service. They state that five times as many bookkeeping transactions are required as for a single 100-lb. capacity cylinder; that the installation labor cost is the same as for the larger type of gas equipment; that just as much service is required upon regulating equipment and appliances; that this type of user is apt to move more frequently, take the cylinders and equipment with him and "forget" to tell the dealer about it.

In addition, there is always the customer who runs out of gas at meal time and calls the dealer up for help. She gushingly states that



"I know I'm supposed to pick up my cylinders, but . . ."

she knows that she is supposed to pick up and return the cylinders, that she should have done it, that friend husband isn't around to attend to the problem right now, her lovely dinner is going to be ruined and "please, oh, please, won't you just this once bring up a tank of gas?"

What are you going to do about it? The chances are that you will be an old softie like most of us are when a lady is in distress and consequently you will drop more important things to run up with the needed cylinder. If she gets away with this once she is apt to try the same old soft soap again. Watch out!

There are hard-boiled gas men who are immune to feminine wiles, and if they do go to the rescue in such a case they tack on an extra charge for delivery. This will quite often straighten out the habitual offender, but then you open the door to those who really cannot transport small cylinders, who need this and no other type of service, and are willing to pay for it. An adequate delivery charge on such



cylinders is so great in proportion to the cost of the product, itself, that it appears to be a gross overcharge, and it is not long before the customer begins to feel that way, too. Result: A dissatisfied customer who makes a lot of talk about the expense of bottled gas service.

If you are operating in a territory where there are many summer camps, you also will have quite a call for this type of service. Most such users will buy 100 lbs. or less of gas per year. The question is, how much can you afford to have tied up in equipment in order to take on this type of customer? The answer is "precious little," so your setup should be such that the customer stands a very substantial portion of the investment in "cash-

and-carry," or "self service," gas equipment and cylinders.

Some gas dealers use these systems as a means of providing cheap gas service to the customer who buys a new range, hoping that later a gas water heater or refrigerator may be added so that a larger type of gas system will be imperative to the customer's increased gas demands. This is good thinking except for the fact that far too many dealers are fascinated by the immediate profit on the appliance sale, thereby letting themselves in for continuance of gas service that may be unprofitable because of a high installation cost in the first place or a prohibitive delivery cost if the customer later happens to change to a type of gas service which requires delivery service.

Warning: Don't stick your neck out for an unprofitable customer just because of the immediate profit upon an appliance sale. Conclusion: If you are operating in a thickly populated area where there are many apartment houses, or in a rural area where there are many summer camps, by all means use "cash-and-carry," or "self service," as one method of selling gas. Otherwise, keep away from it.

We next come to that very important and popular segment of the gas business which depends upon larger capacity cylinders that must be transported to and from the customer's location in trucks. The most popular size of container is one which holds 100 lbs. net weight of liquefied petroleum gas, or approximately 23.64 gallons. Systems using such containers are especially adapted to average domestic serv-

Filling cash-and-carry cylinders at bulk plant.



ices, including cooking, water heating and refrigeration, with possible extensions of the service to domestic space heating.

Profitable operation with such containers depends almost entirely upon efficient planning of delivery service within a usual radius of about 15 miles, but which can be extended to 25 or more miles depending upon the number of installations that you have in that radius and your ability to route deliveries advantageously.

### Developing Routes

Here is where the type of delivered cylinder service that you render comes in, for regardless of whether you operate with two-cylinder systems or metered service your profits depend upon regular routed delivery trips. Of course, when you start in from scratch such trips are not possible until you have acquired a number of customers, but in obtaining them you should work with the ultimate goal of established routes in mind. For this reason it is good business to work intensively an area or a particular road until sufficient customers are signed up to establish a route.

Routing is a simple process which far too many dealers make difficult simply because they will not sit down with paper and pencil and apply a few easily understood fundamental principles to the problem.

First, you must determine what is the *actual* cost in cents-per-mile for operating the truck which you are using for deliveries. Don't load

this figure with such fictitious costs as \$2 per hour for the driver because you get \$2 an hour for his services in other types of work. If you pay him \$1 an hour use that figure in computing your labor cost. **YOU ARE IN THE GAS BUSINESS; NOT THE TRUCKING BUSINESS, AND YOU CANNOT MAKE A PROFIT ON BOTH GAS AND TRUCKING SERVICE.**

Trucking is a means to an end, just the same as your store is, or the electric lights or telephone. I recently talked with a dealer who claimed that he was not making any money in the gas business (although I knew that he was) and when we came to go over his delivery expense I found that he was figuring it in terms of what taxicab fares would be!

### Dealer Analysis Given

The importance of proper routing and adequate gas storage to make good routing possible is well illustrated by Table 19. It is based on an actual analysis of one dealer's deliveries along a certain road. This dealer, thinking to save on his investment, had but one cylinder on each job, and the minute a customer called up saying that he was out of gas he would dispatch a truck on a special delivery trip. Cost of trucking at 10c per mile and a cylinder investment of \$17 each are arbitrary figures which have been selected at random in order to illustrate the point, but they are not far from right under current conditions.

Depreciating cylinders over a 17-

**TABLE 19. AN ANALYSIS OF ONE DEALER'S CYLINDER DELIVERIES TO 12 CUSTOMERS ON ONE ROAD AND A SUGGESTION AS TO HOW TO CUT DOWN HIS DELIVERY EXPENSE.**

Customer's Designation	Distance From Dealer's Store—Miles	Round Trip Distance—Miles	Trips Per Year	Cylinders Delivered in a Year	Total Miles Travelled in Year to Make Deliveries
A	11.2	22.4	6	6	134.4
B	10.0	20.0	4	4	80.0
C	9.5	19.0	3	3	57.0
D	9.25	18.5	1	1	18.5
E	8.5	17.0	4	4	68.0
F	7.0	14.0	3	3	42.0
G	6.5	13.0	1	1	13.0
H	6.0	12.0	3	3	36.0
I	5.75	11.5	4	4	46.0
J	5.25	10.5	4	4	42.0
K	4.0	8.0	3	3	24.0
L	3.0	6.0	3	3	18.0
TOTALS			39	39	578.9

Present cost of delivery per cylinder,  $578.9 \times 10c \div 39 = \$1.484$  each.

**Analysis of How to Cut Down Delivery Cost:**

Distance to most remote customer 11.2 miles, round trip 22.4 miles.

Number of deliveries to most active customer, 6.

Number of necessary trips if there are adequate storage facilities at each place, 6.

Total necessary miles,  $6 \times 22.4 = 134.4$  miles.

Investment necessary for 12 additional cylinders (one per customer),  $12 \times \$17 = \$204$ .

Interest at 5% on \$204.....\$10.20

Depreciation on \$204 over 17 years, per year..... 12.00

134.4 miles @ 10c per mile..... 13.44

TOTAL.....\$35.64

Average per cylinder is  $\$35.64 \div 39 = \$0.913$  each.

**Possible Savings in Delivery Expense:**

	Per Year	Per Cylinder
Present delivery expense.....	\$57.89	\$1.484
Delivery expense by proposed plan.....	35.64	0.913
Savings by adequate cylinders and routed deliveries .....	\$22.25	\$0.571
Percentage of saving, 38.43%.		

year period is the custom with some operators, whereas others use a shorter period of 10 years. The example also illustrates the fact that this is not a buy-and-sell business but one which is founded upon the maximum possible return upon your investment.

There is an old saying that "a dollar saved is a dollar earned" and the importance of saving in transportation costs in relation to gross profits is well illustrated by an extended examination of this particular example. The amount received for the 39 cylinders delivered to these 12 customers in a year was as follows:

6 cylinders @	\$7.50 =	\$45.00
16 cylinders @	\$10.50 =	\$168.00
15 cylinders @	\$12.50 =	\$187.50
2 cylinders @	\$15.00 =	\$30.00

<b>TOTAL</b>		<b>\$430.50</b>
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Saving of \$22.25 in delivery cost =  $\$22.25 \div \$430.50 = 5.16\%$  increase in gross receipts!

As the foundation of your business will in all probability be the domestic cooking, water heating and refrigerating load, it is obvious that the 100-lb. cylinder type of service can play an important part in your business. Even though you contemplate a bulk delivery service, package deliveries can be a valuable adjunct to it as I shall point out at a later time.

Some large demand jobs can be successfully handled by package service through the expedient of manifolded cylinders so that there are multiple cylinders on each side of the regulating equipment, and if you do not have sufficient large



Large capacity domestic storage tank on western farm.

volume customers to warrant bulk service you can get by and make some money on such jobs in this manner. There are some multiple cylinder installations in Maine that have as many as 80 cylinders connected at one time. Jobs of this size could better be handled by bulk delivery service, but in cases where installations of this size are made it is because the over-all picture does not warrant the necessary investment in that type of service.

If you are located in an area where farming is done in a big way, or where there is a heavy concentration of industrial plants, you will undoubtedly be confronted by large volume jobs that can best be served by bulk delivery and in some instances can be served in no other way because of the necessity of establishing low gas prices in order to meet competition.

It takes real money to get into this type of operation, for, if you are not conveniently located near a bulk plant which will fill your

tank truck for you, it will be necessary for you to build such a plant at a cost of anywhere from \$15,000 up to \$80,000, depending upon the location, local restrictions, price of land, cost of side track and the type of construction that you use. A tank truck of small capacity can cost you as little as \$2000, exclusive of cab and chassis, and if you go in for the large trailer type transports you can spend as much as \$15,000 to \$20,000.

Another factor to be considered is the cost of storage equipment upon the customer's premises. The amount to be saved by installing a single large container instead of multiple smaller containers is but a small amount as can readily be ascertained by the price schedules of the tank manufacturers.

Where a dealer goes extensively into bulk deliveries, the investment can be a considerable amount. This has caused many operators to sell the storage equipment to the consumer with the result that he can be anyone's customer who happens

to have a bulk tank truck. In this respect bulk delivery closely approaches the fuel oil business in its distribution plan. Here, again, if you are to protect your interests all the way through, bulk delivery can get into a considerable investment.

Here is where the domestic heating load is exerting a profound influence upon the liquefied petroleum gas business. It is a market which we have as yet barely approached. Its possibilities are almost beyond comprehension. Only by getting the cost of our product down through bulk deliveries and small profits on volume sales can we ever hope to make much of an impression upon it.

The liquefied petroleum gases are receiving increased recognition as a motor vehicle fuel. This usage requires service stations which may be operated in connection with a bulk plant, but as the field is enlarged it will require very many stations which must be supplied from the bulk plant by bulk tank trucks or transports. This type of operation is at present pretty much confined to the central and western portions of the United States, but it is rapidly creeping eastward and the time is not far distant when there will be Coast-to-Coast liquefied petroleum gas stations as well as gasoline service stations. Some stations will be combinations of both.

Quite frequently I am asked by gas dealers who are well established in the 100-lb. cylinder type of operation as to the practicability of filling these cylinders at the point of installation from a tank



Typical one-cylinder installation.

truck. Unless the filling is done by weight, which means that the cylinder must be disconnected and placed upon a reliable weighing scale, it is necessary to re-valve the cylinder at considerable expense.

Bear in mind that such a cylinder only holds 23.64 gallons, and in bulk delivery service you would not allow it to become entirely empty, so your deliveries would probably be 20 gallons or less. It is my personal opinion that if bulk delivery is to be substituted for cylinder service, then the cylinders should be removed and a tank of suitable capacity installed.

Certainly you cannot make much money delivering by the gallon into 100-lb. capacity cylinders unless your price per gallon is high enough to cause considerable comment when the customer learns of the much lower per-gallon price at which you fill containers at commercial and industrial locations.

#### **What About Replaced Cylinders?**

The question then arises, what shall the dealer do with the 100-lb. capacity cylinders which he removes and replaces with larger containers?

There will always be a place for such cylinders back away from the paved highways or at the homes of those escapists who seek refuge from the maddening crowds in island retreats or on the mountain tops. We have hundreds of such places here in Maine where people live the year around and they demand in their return to the simple life the luxuries of advanced civilization.

It seems to me that if I were starting in the liquefied petroleum gas business today I would first use 100-lb. capacity cylinders. As I acquired large volume users I would handle them through multiple cylinder installations even if I had to do so for a time at little or no profit. When I acquired sufficient large volume users to break even on tank truck delivery and could see the immediate acquisition of a lot more of them I would give serious consideration to bulk delivery service. Once having entered this field I would put my 100-lb. cylinders onto jobs where large storage either could not be used or would not be profitable.

#### **Bulk Deliveries Come Later**

Perhaps the time might come when I would want to go to bulk delivery service entirely. I would then offer my 100-lb. cylinders for sale to those who still use them in other territories. I know that I would never have any trouble in selling them, providing I had depreciated them fairly over the years, and if my business was not set up so that they could be depreciated then, there would be something radically wrong with it.

I believe that there are localities where a dealer should be in both the package and bulk delivery business, but more than this, I believe in the old adage that one must creep before he walks. Package service is the way into this business on a limited investment. Bulk delivery, as a general rule, comes after you have acquired some size and financial stability.

# Coal Users Easily Switched To Propane By New Jersey Dealer

By TED KNIGHT

**A** BOTTLED gas dealer should have a store. It is his most valuable asset in building up his gas volume as well as the sale of appliances and I can attest to this because we have enjoyed an ever-increasing business since we opened ours," says Frank Barry, Barry Brothers, bottled gas dealers, Westville, N. J.

Frank and Jim Barry for a good number of years were in the coal and fuel oil business. Then about four years ago they saw a decided trend towards the use of LP-Gas in the areas of New Jersey that they already served so they added "Esso-tane" bottled gas to their business.

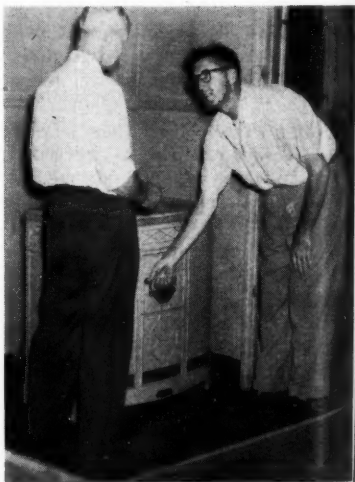
"We have since converted so many of our other fuel customers to bottled gas that today it is our main line," says Mr. Barry, "with our other fuel being served just so that we can stay in contact with these customers. Eventually we feel that we will be able to convert almost 100% of our customers to propane because of its advantages over other fuels."

Barry Brothers' store is located on Broadway in Westville which is a main thoroughfare. They formerly worked out of an old store which wasn't too attractive and appliances were stocked for delivery purposes. With a noticeable gas business increase, it was decided to renovate the store and make it a showplace.

Large double windows were installed to make the entire store a display area. A complete line of bot-

tled gas appliances was displayed and evening spotlights were installed to highlight some of the merchandise. Mr. Barry is personally in charge of gas sales because he feels that it is the campaign's leading item.

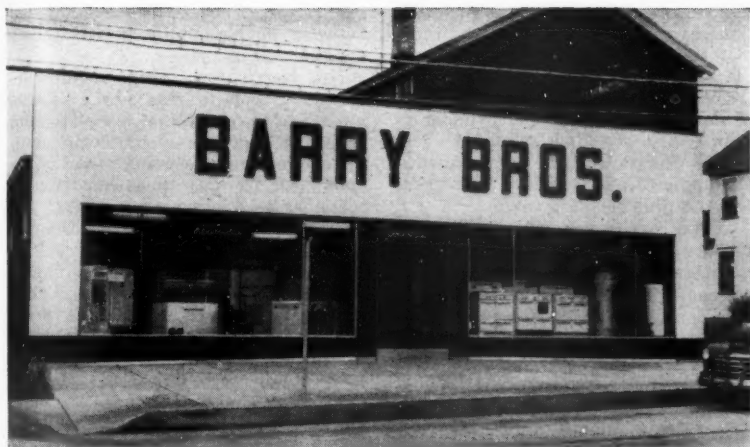
"One of the main reasons why we have been able to increase our gas volume is because of our rate schedule," says Mr. Barry. "The more appliances that a consumer installs, the cheaper the gas rate. Here is where



Frank Barry shows a prospect a bottled gas heater.

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FEBRU





New store features full display of appliances and large show windows to stimulate business.

we meet and overcome other fuel competition. No matter how many appliances in a home use some types of fuel, the rates remain the same. But the more bottled gas appliances they have, the lower the rate.

"And at the same time, the more gas they use, still less they have to pay. Thus we have a double-barrel sales feature to offer prospective gas users. And here is our gas rate schedule:

"One-appliance users pay \$12 per cylinder (100 lbs.) up to four cylinders. From five to seven cylinders they pay \$11; from eight to nine they pay \$10, and over this number they only pay \$9.

"Customers using two appliances pay \$9 for each cylinder up to nine in any one year. Over nine they pay \$7.50.

"Customers having three appliances pay \$6.50 per cylinder as do larger

industrial users that use over 20 cylinders per year.

"Our customers pay for bottled gas on the rate established for them. As soon as they reach the qualified number that gives them a reduced rate, they get a rebate. These prices cover the use of gas over a 12-month period."

Barry Brothers have two pick-up trucks that cover all of Gloucester county in New Jersey. Each deliveryman has a steady route that he covers, and they call in at 3 p.m. every afternoon to see if there are any special calls for them.

"Although our customers can phone in or mail a card for gas," says Mr. Barry, "we seldom wait for it to come. Our routeman covers all our territory regularly and we have found that it sells more gas for us."

As 90% of the Barry Brothers

customers are dual hook-up installations, experience has shown them that the customer usually waits until the second tank gets low before he orders for more gas instead of doing so immediately after one cylinder is empty. By checking regularly, customers almost always have a plentiful supply of gas, and Barry Brothers does a larger business volume.

"There are times when customers don't want more gas and then it might seem that the routeman made a stop for nothing," says Mr. Barry. "We don't consider it as such, for the simple reason that if a customer doesn't want any gas on that stop, our routeman can spend the usual hook-up time talking to her about additional appliances. In this way we obtain leads on new appliance business and this more than pays for the time and effort involved."

The firm serves over 1400 customers, with 90% of them just using a

gas range. The balance are divided between double-appliance and three-appliance users.

Mr. Barry feels that because he has just been in this phase of the business for four years, his customers have not had time to become completely sold on converting other house appliances to gas. But every range customer is a prospect for other appliances and Mr. Barry feels that he has a fertile field.

Every installation made by Barry Brothers is a double hook-up. The installation charge is \$10 and \$9.75 for leasing. Thus customers pay \$19.75 plus the cost of the gas. Leases cover installations on a yearly basis and are renewable.

As a rule, customers pay their previous bill when a new tank is connected and in some cases are billed after the installation. Because bottled gas is a necessity, the firm has little trouble with payment, although



A full line of gas appliances is valuable in changing single-appliance users to double-appliance users.

it experiences a slow customer from time to time.

If any gas customer purchases a second or third appliance, Barry Brothers makes the installation without charge. With many new homes going up in the area, Frank Barry is alert to these opportunities and usually makes a gas installation by the time a home is ready for occupancy.

"Our modern building and showroom is a terrific influence on customers to convert to bottled gas or start off initially with it as a fuel," says Mr. Barry. "That is because they can see the modern line of appliances available and they don't think of LP-Gas as only being a fuel for brooders, industrial uses and tractors.

"Many customers picture bottled gas as a fuel for these items because they aren't familiar with the modern range of appliances. Let them see what can be offered and it will change their minds."

#### **Believes in Advertising**

The store promotes bottled gas business with highway signs, classified and display advertising in newspapers covering the areas served. In addition, there are mailed inserts and stuffers to all customers on water heaters, refrigerators and house heaters that do not have these appliances.

When the county had a farm show recently, the store supplied the restaurant with bottled gas and appliances. In return, large signs promoted Barry Brothers and these products and the store received a generous number of gas prospects.

"One of our best salesmen has been the bottled gas cabinet type heater that is used in our store," points out Mr. Barry. "We can show customers how warm the store is and also the double hook-up on the outside. If we

can heat a large store like ours economically, customers can certainly do likewise in their own homes."

The firm expects to install a 7500-gallon storage tank this fall as business increases. Currently, they take empty cylinders to a filling station weekly and they expect to do away with this after the installation of the bulk plant.

All returned cylinders are repainted, and when they are returned to customers minor adjustments can be requested of the deliverymen on any of the appliances in use.

### **Andrew Olson Is Manager Of Suburban Propane Gas**

Andrew R. Olson has been elected to the new office of vice president and general manager of Suburban Propane Gas Corp., Whippany, N.J., according to an announcement by Mark Anton, president.



**ANDREW OLSON**

Mr. Olson joined the company in 1948 as manager of operations and later became manager of sales and operations. He has been identified with the liquefied

petroleum gas industry for virtually his entire career. Shortly after his graduation from the University of Kansas in 1929, he joined the Phillips Petroleum Co. and has been with that firm ever since.

Suburban Propane operates in 14 states in the East, serving more than a quarter of a million customers.

# Gas Maintains Its Low Fire Loss Rate

THAT gas is rated as the safest of all fuels is again evidenced by the 1950 report (last available) of national fire losses by the National Fire Protection Assn., Boston, Mass.

Appearing in the 21st place of causes of fires throughout the United States, gas is credited with responsibility for only 7800 fires in 1950 as against 53,700 started by electricity incident to use of fixed electric services, faulty wiring and equipment,

and misuse. In addition, there were 20,100 fires caused by electrical power consuming appliances, a grand total of 73,800 fires which caused a monetary loss of \$84,500,000 compared to \$9,000,000 for gas.

Flammable liquids, which includes kerosene and gasoline, are in 16th place, with the number of fires placed at 14,600 and the loss at \$21,000,000.

The complete figures are shown in the accompany table.

## 1950 FIRE LOSSES IN THE UNITED STATES (Source: National Fire Protection Assn.)

Cause of Fire	No. of Fires	Loss
1. Smoking and matches.....	93,000	\$ 55,000,000
2. Electrical, fixed services, misuse, faulty wiring and equipment.....	53,700	73,000,000
3. Miscellaneous .....	52,000	20,000,000
4. Unknown .....	48,500	215,000,000
5. Defective or overheated heating equipment .....	45,000	48,200,000
6. Rubbish .....	35,600	8,100,000
7. Lightning .....	31,000	30,000,000
8. Lamps, lanterns, oil stoves.....	30,700	30,000,000
9. Chimneys, flues—defective or overheated .....	29,000	23,600,000
10. Children and matches.....	20,200	6,900,000
11. Electrical power consuming appliances	20,100	11,500,000
12. Open lights, flames, sparks.....	18,000	12,000,000
13. Sparks on roof.....	18,000	12,000,000
14. Exposure .....	15,300	25,800,000
15. Spontaneous ignition .....	15,000	24,000,000
16. Flammable liquids, home dry cleaning, starting fires with, etc.....	14,600	21,000,000
17. Grease, tar, etc.....	12,500	5,000,000
18. Combustibles near heaters.....	8,700	8,500,000
19. Hot ashes, coals.....	8,600	10,000,000
20. Explosions .....	8,300	19,100,000
21. GAS AND APPLIANCES.....	7,800	9,000,000
22. Incendiary, suspicious .....	5,600	15,100,000
23. Torches, welding, cutting, plumbers, etc. ....	4,000	5,500,000
24. Thawing pipes .....	2,700	5,100,000
25. Sparks from machinery, friction.....	2,100	6,200,000
Total .....	600,000	\$699,600,000

# If You Want to Build a Bigger, Better Business, Watch Your Customer Relations

By PIERRE VINET

Director, Sales Promotion, Geo. D. Roper Corp., Rockford, Illinois

WE are going to talk\* about people, not as such but as to their needs and wants. We will attempt to indicate in some way that a satisfying WANTS will build and maintain customer relations.



PIERRE VINET

People do things because they want to do them, not because you or I want them to. The important element in understanding people—and un-

derstanding people is a vital element in salesmanship—is to think in terms of the other fellow's wants.

Now, the good salesman and serviceman is the one who discovers these wants in his prospects and plans his approach accordingly. What the salesman has to sell is unimportant—what the prospect wants is important. People want things for what those things can do for them.

## What Is a Serviceman?

The L. P. gas serviceman is a salesman, the L. P. gas serviceman is a serviceman, the L. P. gas serviceman is an executive. Certainly most of you are a combination of all these assignments and probably have members of

your family operating your places of business and keeping your records.

There is an apt phrase in selling which reads:

"A salesman is one who sells goods that won't come back to people who will."

To accomplish this, the services of a good serviceman are required because in the final analysis he is the best salesman, he is the one who can do more or break a sale than any other individual in the organization.

A salesman has many obstacles to overcome, for somehow most people resent having a salesman come to the door, even though most salesmen, especially those in the gas business, are there to present and make available a useful and economical service. It's just a little different when the prospect comes into your place of business, as in that case he is usually looking for a salesman to obtain information about the merchandise and service which he WANTS.

Servicemen are usually called or sent into the home. If for the delivery and installation of an appliance, this is fine, but if for answering a complaint, this is where customer relations enter into the picture. What you look like, what you say, what you do, how you handle your tools, and how you go about your work quickly tell a story as to whether or not you and your company will do business

\*A talk delivered to registrants at the LPGA Western Service School, University of California, Berkeley.

with that particular prospect and retain him as a customer.

As executives in your respective businesses, you are charged with the responsibility of doing more useful, practical things for your prospects and customers than your competitors do.

### What Can We Do?

The question in your mind should be, "What can I do in today's abnormal war-time market—to make sales—hold customers—develop prospects and build good will and profits for the post-war tomorrow."

The first thing we must have, of course, is teamwork. After that we must have a code of ethics or some rules to govern our everyday activities with people, so we term such a code:

"Service is a Set of Good Habits," made up of courtesy, thoroughness, promptness, fairness, helpfulness.

### Why Customers Are Lost

Many times we wonder about the reaction of customers, especially when we lose a sale or when they do not warm up to the type of merchandise we have to offer and the adequate service which goes with such appliance installations. We made some inquiries about this particular subject to determine why such sales are lost and have come up with the following information, listed in the order of importance:

1. 68%—Indifference in maintaining customer contact.
2. 14%—Unadjusted grievances.
3. 9%—Price inducements of competition.
4. 5%—Influence by friends to patronize their favorite vendor.
5. 4%—Die or move away.

Not long ago I saw an advertisement which read, "Customers Are Not Necessarily Friends." It has a definite

bearing on this "Study of Humanics" which we are discussing under the title of, "Customer Relations," and says:

"Listen in the locker rooms...ask your wife what she heard at the bridge club...or make a thousand calls on the people who buy what you sell:

"You may discover that making sales and making friends are two different but related jobs!

"Folks may go to the only movie nearby, and still complain about the stories the studios choose. Men may ride on a railroad because it goes where they want to go, and yet make the air blue with complaints. Women may walk for blocks to save their pennies at a chain store, and yet denounce it as a 'foreign' company.

"No—a business cannot take for granted that customers are friends. Nor risk having many non-friends whose votes may someday be put together against it!

"That's why Public Relations has grown far beyond press-agentry. Today it concerns itself with helping to make sure that policies are right before they are adopted...and then that they SEEM right to all the various 'publics' they affect. No matter how sound the planning, people are likely to be against what they don't understand.

"So nowadays it is a top-management job to make sure that business policies both deserve and win friends, as well as customers!

"But friends make wonderful customers! Your product seems to wear longer, work better, look handsomer when bought by the man or woman who also has learned to think well of your company, too!"

### What Can You Sell and Service?

What, then, is your job with regards to selling merchandise, appliances? No sale is complete until you

# WEST'S WORST WINTER



## **CALOR** *Keeps 'em Supplied!*

THE worst winter of the century and CALOR keeps its customers supplied. Better see CALOR now and you, too, will agree ... it pays to deal with the West's leading independent marketer of LP-Gas for a more *dependable, all-weather supply*.

For a more complete service all ways—always call CALOR

### **CALOR GAS COMPANY**

114 SANSOME STREET • SAN FRANCISCO 4, CALIFORNIA

Telephone YUKON 2-3360

*Serving Western America*



have the cash in full, until your customer speaks well of the service you rendered and the beneficial service which the appliance is giving him and his family. Certainly it is the thought to give people what they want. They do not like to be sold. I think you will agree with me that people like to buy what they want.

### What Do We Buy?

For the great mass of humanity, it may certainly be said that while none of us likes to be sold, we all like to buy what we want (whether it is a tangible or an intangible). Service after the installation of an appliance in most cases is an intangible as it cannot be seen, but the proper kind of service can be appreciated even more than the appliance, itself. Therefore, the task of the salesman or serviceman is not to try to make sales, but it is to try to create wants.

As an example, I have in mind the case of a heating salesman who had made five or six unsuccessful trips in an endeavor to sell a modern heating plant to a prospect. The next time he called at the prospect's home, however, he noticed that the prospect had a badly crippled child who spent a great deal of time playing on the floor. The salesman realized that every normal parent wants to protect his children and make them comfortable. By appealing to the prospect to put in the type of equipment which would protect the health of the child, the salesman appealed deeply to a fundamental want—the want to give all possible comfort to his child.

You have approached the first step when you say the salesman's job is to make a want and not to make a sale. People buy what they want. What do they want? Do they want home appliances? Absolutely not. Nobody buys and nobody ever has bought home appliances. People buy

what the thing will do for them, invariably. They buy not home appliances, not ranges or sinks or deep freeze units, but they buy convenience. They buy what the thing will do for them, because the thing that it will do for them is what they want, and they buy what they want.

The seller must create interest. He must touch upon self-interest, and he must gradually intensify self-interest until it reacts in the form of action. And that action is the result of a buying idea.

Every salesman sells an idea. That is all he can sell. No salesman, as I said before, can sell home appliances. The salesman can't sell what the prospect is going to do with what he sells him. And yet that is what the prospect buys.

### Build Customer's Ideas

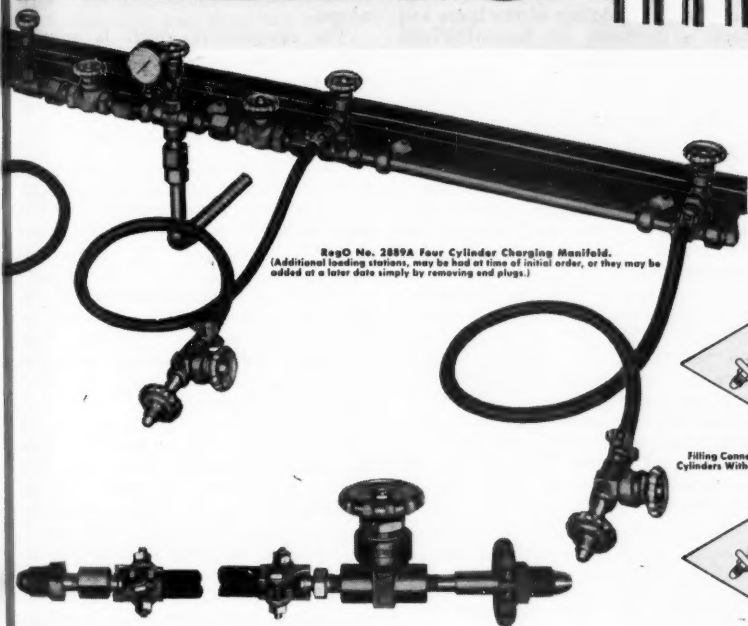
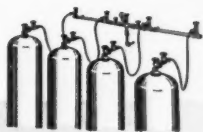
Therefore, by following customers' wants and desires and helping them develop their ideas, and not necessarily ours, we promote "customer relations" which is so vital in our highly competitive L. P. gas industry. Customer relations are public relations and there is no ending to public relations in our business.

"PUBLIC RELATIONS" is a relatively new expression in business; consequently, the meaning could be misunderstood. Most people interpret public relations in the light of publicity, advertising, and that it applies only to such institutions as newspapers, public utilities, railroads, steel, etc.

To be specific, therefore, with reference to L. P. gas, public relations is something that has to do with every hour in the day, you are not going to be asked whether you like it or not. You are going to like it and do something about it or you have no business in this kind of a business.

In the liquefied petroleum gas in-

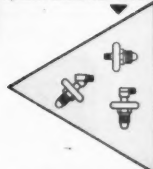
# FILLING



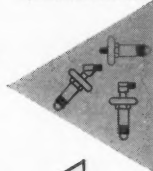
**RegO No. 2899A Four Cylinder Charging Manifold.**  
(Additional loading stations, may be had at time of initial order, or they may be added at a later date simply by removing and plugs.)



**Filling Connectors For Use On Cylinders Without Fixed Collars**



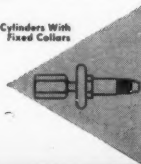
**Filling Connectors For Use On Cylinders With Fixed Collars**



**Adapter For Cash and Carry Cylinders**



**Adapter For Cylinders With Fixed Collars**



**REGO LOADING HOSE ASSEMBLIES** provide quick, positive connection between manifold and cylinder. POL connectors are provided with stainless steel nipples to withstand the wear and abuse which result from the repeated connection to cylinders. Combination handwheel and hex wrenching nut enable fast and positive seating.

RegO filling connectors and adapters for all types of cylinders are shown at the right.

**PIONEER AND LEADER IN THE DESIGN AND MANUFACTURE OF PRECISION EQUIPMENT FOR USING AND CONTROLLING LP-GASES**

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News

dustry we serve the public around the clock and the relations you have with your individual customers are either good or they are bad; consequently, there is no straddling of the issue and there is no room for hemming and hawing, and there is no room for defense of actions that reflect poor public relations and so the question is: How can we improve public relations, be they good or be they bad?

The primary requisite for good public relations is doing the job right, and this responsibility is that of every one of you department heads and subordinate officers who employ men and women and direct their work. It is the employee who comes in contact with the public that bespeaks management at its best or at its worst and here again is where all of you come in. There is no one in your business more capable and more important to the improvement of good public relations than you who supervise the work of others. There is no one but you who knows more about what is going on, or has a greater opportunity to influence what is going on or has as much opportunity to correct what may need correcting.

### **Keep Employees Informed**

Just friendly and good service, therefore, is not enough. All of your employees must be thoroughly informed as to what is to be expected of them. They must not only know their own products and their own service problems, but also those of others.

Public opinion today we can rate as good insofar as L. P. gas service is concerned, but if it is to stay good, then all of us in the business must improve.

This brings me to another interpretation of public relations that I would like to set up as "Competition Versus Cooperation."

It is inspiring to talk about cooperation. It is a word that we all like to hear and many of us use, but by the same token, to some degree, abuse.

The competitive spirit is passing rapidly and a tendency toward increased cooperation in business and industry is developing rapidly.

### **Cooperation Is Essential**

We have many examples today before us for the need of unity of effort and purpose. Your assembly in this room today is not one of competitive aspects, but is one of cooperative spirit. You are here to impart knowledge and assimilate information that will be helpful to you, one and all. We are here in a cooperative effort, traveling toward a common objective, dignifying our position in our business life as we go along.

The objective is to sell gas for all domestic uses, and to be sure, commercial and industrial uses, also. Once gas as a fuel has been sold, then the competitive spirit enters into the game at the local level, each one of you telling in your community the story that "gas has got it," but aggressively displaying, merchandising, and selling your own brand products.

This complete tie-in is just as simple done as it is presented. The problem of how you cooperate or how you compete is up to you, but let us cooperate to sell more and more.

Today the great American public with whom you deal, is looking at you and your service through the back streets and alleys of America. If your tank installation bespeaks that of a good artist, you create a favorable impression. If your tank installation is sloppy and slovenly and you haven't been careful as to detail on installation, including proper bending in pipes and connections, you are one to be watched and supervised.

Do you know all the answers, or are you willing to let your customer tell you what's wrong? You may not agree, but if it makes them feel better by having told you, then let's be good listeners.

It is important that proper coverings on the floor and on the appliance be used in the presence of your customer, because it indicates to them a profound respect on your part for this beautiful equipment you are now about to operate on.

### Last Impressions Important

In a new installation, a good job of cleaning up is just as important as a good first impression. You may feel that you are not hired to use a broom and dust cloth or even a wash cloth, but gentlemen, I want to remind you that it is part of your job.

The use of proper tools for proper adjustments is of utmost importance and the home-made mechanic places a value on you as a mechanic based on what he sees you use in the way of tools. If you are using pliers where a wrench should be used, you are a poor mechanic. Maybe you don't think so, but the customer thinks so—and who is more important and more right then the customer? If you are going to use the proper pipe hangers and clamps, use them consistently throughout the job and don't switch to bailing wire or bent nails to complete the work.

You are the most important representative as a service representative the company can have, and the values of the company in relation to service are reflected in your appearance, your mental attitude, and behavior. You are really a king bee. You are a most important man because yours is a most important job.

If you are not doing anything about your service training programs, please do so now. Service training programs today employ new and re-

Want to  
be ridin'  
high, too?



*Install trouble-free Honeywell Controls like these in your customers' homes!*

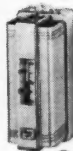
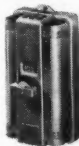
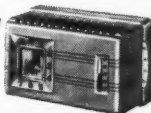
**Honeywell Solenoid Gas Valve,  
Model V835**



It's rugged, dependable, and low in cost! Valve seat disk wears practically forever. Hammer-action type plunger and sturdy centering disk assure positive valve opening and closing even under stickiest of gas conditions.

**Control the V835 with any  
of these fine thermostats**

- 1) *The new Chronotherm lowers temperature at night—raises it in the morning, all automatically.*
- 2) *Time-O-Stat provides lower night temperatures and automatic morning pickup.*
- 3) *Comfort Thermostat is low in cost, accurate, dependable and simple to calibrate or adjust.*



*For more information, call your nearest Honeywell office. Or write Minneapolis-Honeywell Regulator Company, Dept. BN-2-15, Minneapolis 8, Minn.*

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*First in Controls*

vised techniques and do remedy many sad service situations that exist.

To the man who serves and who is a doer of things and responsible for our customer relations, these qualities and characteristics develop work into play and make all the things you do most interesting. They spur you on to greater heights of personal and business achievement. You must think in terms of your prospects' wants. You must think in terms of the fullest cooperation in service with your prospects and customers. All this in the interest of keeping open your place of business in the good years ahead.

These important sales and service factors help raise your standards of service and leadership in your community. They soften the harshness of competition and make cooperation sparkle like a beacon in a darkened business world.

## **Butane-Propane Carburetion Manual Available Feb. 15**

The "Butane-Propane Power Manual," preliminary announcement of which was made in these pages several months ago, will be ready for delivery by approximately Feb. 15. This book has been prepared to meet the needs of thousands of bulk plant operators, dealers, and automotive service shops, for complete information on the installation, operation, servicing, and selling of butane-propane carburetion equipment. It rounds out the series of fundamental working books which has been made available to the industry by BUTANE-PROPANE *News*.

Separate sections of the Power Manual have been devoted to basic facts of fuel and power—butane-propane carburetion principles and equipment—how to make conversions—maintenance and trouble shooting—constructive sales plans—factory ap-

proved instructions for the adjustment of all makes of LPG carburetors. Since the manual is designed to be a ready-reference book, a complete cross index has been included.

The 330 pages of text are profusely illustrated with photographs, diagrams, and engineering drawings. Much of the material contained in the book is appearing in print for the first time. For convenience of use and durability, the "Power Manual" has been produced in the handy coat pocket size, with washable plastic binding.

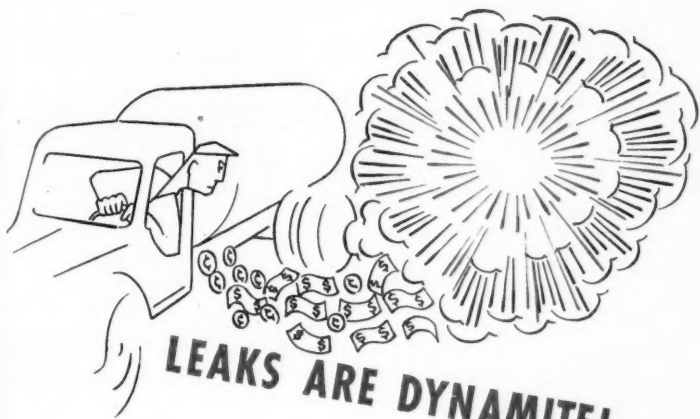
The author, Carl Abell, has been a specialist in internal combustion engine design, operation, and maintenance, since 1921. A long-time member of the Society of Automotive Engineers, and a nationally known writer and lecturer, he has contributed articles on L. P. gas carburetion to leading magazines in the transportation, farm equipment, and petroleum industries, including BUTANE-PROPANE *News*, of which he is now editor.

Advance orders for more than 1300 copies, as the result of the preliminary announcement, indicate the great demand for a practical working book on this subject. Copies may be obtained at \$3.50 each, from BUTANE-PROPANE *News*, Jenkins Publications, Inc., 198 S. Alvarado St., Los Angeles 4, Calif.

## **Lloyd Batterton Sells Business To Lewis and Ellinwood**

Wesley Lewis and Jack Ellinwood, of Johnson, Kan., have purchased a butane and propane business at St. Francis, Kan., from Lloyd Batterton, Johnson distributor.

Mr. Batterton had owned the business in Cheyenne county six months, dividing his time between Johnson and St. Francis, operating both firms.



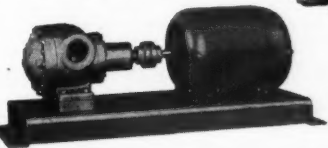
## LEAKS ARE DYNAMITE!

*The constant product loss through leaky pump packing runs into money, and the fire hazard endangers life and equipment.*

*Smith Pumps with self-adjusting packing save you money through reduced product loss, freedom from costly shutdowns and service expense, faster delivery, and lower labor expense.*

*Among the 14 models for all types of truck or bulk plant service is the pump best suited to your requirements.*

*To help you make a good pump installation, we offer you assistance—in the form of reprints of articles on pump installations and literature describing the most efficient operating ranges of the various Smith Pump sizes.*



# SMITH

**PRECISION PRODUCTS COMPANY**

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# Relief Valves on Water Heaters Are Important Safety Factors

THE functions of relief valves on water heaters have been described in detail by L. A. Iversen, service manager of the Pyrofax Gas Co., New York City, in a recent release to distributors.

The points are set out here for LPG dealers, all of whom can profit from a study of these important facts affecting safety.

It should be remembered that specific information can always be obtained from the manufacturers of relief valves and water heaters.

It is a requirement of the National Board of Fire Underwriters that no water heater be installed in a closed plumbing system of water piping unless an approved water pressure relief valve is provided. This is also a requirement in practically all local plumbing or building codes and should be followed accordingly.

## Must Allow for Expansion

To understand the reason for a relief valve, it is necessary to realize that when water is heated it tends to expand. If there is plenty of room for this expansion to occur freely, the water will simply get hotter with continued application of heat, finally changing to steam at 212° F and atmospheric pressure. This is what might be expected in an "open" plumbing system where there is nothing to

prevent the hot water from expanding or "backing-up" into the cold water lines;—*except* that in this case, the water may get hotter than 212° F depending on the incoming water pressure.

In a "closed" system of water piping, however—such as one in which a water meter, check-valve, pressure-reducing regulator or pump is installed—these devices may prevent the hot water from expanding freely; as a result of which higher and higher pressures may build up in the tank. It is to protect the tank against excessive pressures that a relief valve is installed;—this valve having previously been set at a predetermined point to accomplish its purpose.

It is good policy to recommend that an approved relief valve be provided on *all* water heater installations regardless of whether the water piping system is "open" or "closed." Such a valve may not be absolutely necessary in an "open" system but is desirable as an added safety feature.

## Types of Valves

Generally speaking, water heater relief valves fall into the following classifications:—

(a) *Pressure relief valves* or those which open and close responding to the *pressure* of the water.

(b) *Temperature relief valves* or



**SINGLE**

or

**TWIN**

**BARREL**

a few of the many  
custom and  
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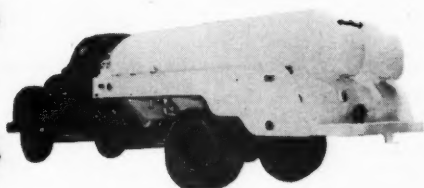
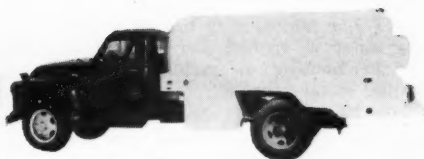
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## TRUCK UNITS

All over the world dealers look to North Texas Tank for quality constructed tanks that are production priced. Our truck tanks are fabricated of light weight, high tensile steel to U69/250 Code. No extra frame reinforcing is necessary. Standard size truck unit is 1250 W.G. and other units are available up to 1800 W.G. Write or call today for prices and specifications.

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those which are actuated by water temperature. Of these there are two types—

(1) *The fusible plug type* in which the relief is opened and kept open by the melting or softening of a fusible metal plug;

(2) *The reseating or self-closing type* in which a thermal element opens and closes at a predetermined point depending on the water temperature.

(c) *Combination temperature-pressure relief valves* which simply consist of a temperature relief valve and a pressure relief valve combined as a single unit.

Most relief valves operate on the principle of discharging water from the system to relieve the pressure. A few types, however, simply shut off the gas supply if the water should get too hot; these types being installed *in addition* to the regular thermostat and *remaining closed* until the thermal element is replaced. It is important to differentiate between this type of valve and a 100% automatic shut off device which is designed to shut off the gas supply to the heater in the event of *pilot outage*. They are the same.

#### Valve to Prevent Vacuum

Finally, in some areas on certain types of heaters, local conditions make it necessary to install what is known as a vacuum relief valve in the system—the purpose of this valve being to prevent a vacuum being drawn on the tank which might cause it to collapse. This will seldom be encountered, but should be kept in mind.

As a general rule, it is better to install a *combination* tempera-

ture-pressure relief valve than it is to install simply a temperature relief or a pressure relief, alone. However, the type of valve should always be determined by proper reference to any local regulations which may apply and to the heater manufacturer's instructions. This applies also to the setting of the valve as well as its size and capacity.

Under no circumstances should a relief valve be installed which is not of the proper type and size for the particular system involved. Relief valves approved by the A.G.A. Laboratories are listed in the current A.G.A. Directory of Approved Gas Appliances and Listed Accessories and any valves supplied with approved heaters must comply with the Listing Requirements.

#### Installation

The preferred location for a *pressure* relief valve is usually in the cold water inlet to the tank in order to take advantage of the flushing action of the water at this point in keeping the valve clean. Temperature relief valves and combination temperature-pressure reliefs should be installed in the top of the tank or in the hot water line close to the tank so that their thermal elements will be in direct contact with the *hot water in the tank*. Under no circumstances should a manually operated valve be placed between the relief valve and the tank; and, in all cases, installation must be made in accordance with local regulations as well as the manufacturer's instructions.

When installing a water heater

it is important to make sure that the discharge from the relief valve terminates at a point where the overflow will drain off freely without harm to persons or property due to burning, scalding or flooding and under no circumstances should a shutoff valve be installed in this line.

Adjustment and checking of relief valves should always be made in accordance with manufacturers' instructions and in compliance with local regulations. Under no circumstances should these devices be tampered with or have their settings changed by uninformed persons.

The proper installation of these safety devices is extremely important and should be studied carefully by all distributors and servicemen.

## General Gas Corp. Encourages Young Agricultural Engineers

One of the nation's largest butane-propane dealers has launched a new program designed to assure greater strides in the L.P. gas industry in the near future.

The General Gas Corp., Baton Rouge, La., located just a few short miles from the gate of Louisiana State University, set forth recently to cement better relations with the future agricultural engineers that go forth each year to raise the standard of farming and farming methods.

R. D. Phillips, president of General Gas, was informed that the national student president of the American Society of Agricultural Engineers was a senior at LSU, and that it would be impossible for this boy to attend and preside at the national meeting in Chicago last December.

"We need young men like Richard Walker, if we expect the LPG industry to take its place on the American farm," Mr. Phillips told Professor Carter of the agricultural department at LSU. "Tell him to pack his bags. General Gas will sponsor his trip to Chicago."

There was an undercurrent of even



Richard Walker, Elton, La., is congratulated by R. D. Phillips, president of General Gas Corp., which sponsored the LSU senior's trip to Chicago to attend the National Agricultural Engineering Society's convention in December.

greater plans along these lines. Wharton LeBlanc, chief engineer for General Gas Corp., believes that the L.P. gas industry will do itself proud to assist these future engineers and make places for them at the dealer level. General Gas believes that it's just good business to make good agricultural engineers available to farm customers.

Richard Walker was elected to the student presidency of this national organization in Houston last June. He is the first student president to be elected from a southern university!

# Current News From Washington

As the United States gets deeper into the defense program, many industries are affected by increasing shortages and the application of restrictions on materials and goods.

The following is a report on matters of interest to butane-propane dealers. It is dated Jan. 22 and 24 and was prepared by Howard D. White, executive vice president of the LPGA and that organization's Washington representative.

## Adjustments in Service Charges:

The Office of Price Stabilization has amended CPR 34. CPR 34 covers appliance installation charges, service charges and general service contracts at the retail level. It also could be used to cover installation charges in making an L.P. gas system installation, although CPR 93 provides an alternate method of establishing ceiling prices on such installation charges.

The new amendment to CPR 34 is contained in Section 20 and incorporates the provisions of the Capehart Amendment allowing for upward adjustments. Basically, Section 20 provides that OPS will adjust ceiling prices upon a showing that the present ceiling price impairs your pre-Korean earnings. The application should be filed with your OPS district office.

## Wages

The Wage Stabilization Board has issued General Wage Regulation 19 and Resolution 78 setting forth its policy on health and welfare plans. GWR 19 allows for the establishment

of new plans and the modification of old plans permitting the following benefits: temporary disability, hospital expense, surgical expense, in-hospital medical expense and group term death benefits.

WSB Resolution 74 authorizes its staff and regional offices to approve increases in minimum guarantees and straight salary or base rate components of earnings of commission employees to the extent presently permissible under general and cost-of-living increases.

WSB Resolution 77 brings all driver-salesmen under the jurisdiction of the Wage Stabilization Board. Previously, jurisdiction had been divided between the Wage Stabilization Board and the Salary Stabilization Board.

## Cost Increases

The Capehart Amendments have been promulgated through GOR 21 permitting manufacturers and processors to add certain post-Korea cost increases to their ceiling prices. This order does not apply to marketers and retailers. We entered petition, however, to OPS to grant marketers and retailers the right to pass through such increases and any arising out of other approved increases and we are informed that such an order is now drawn and is expected to be issued within two weeks. The actual effect cannot be foretold. Note that neither of these provisions will change the established ceilings but are interpreted as ceiling-plus-increased costs.

Some producers do not believe the Capehart Amendments provide sufficient incentive to apply for increases

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10,000 will be able to get!"

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This new golden Magic Chef is designed to bring traffic,  
lots of it, to your sales floor! A stopper in styling, covered  
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FAMOUS Magic Chef FEATURES



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on L.P. gas. Relief has been granted by OPS to a few marketers who were able to prove a margin too low to assure continuing in business, but OPS has not been careless in judging such applications nor generous in dealing with them. They have reported that several hundred such applications have been received, the majority of them containing insufficient information.

Since the basic purpose of OPS is to hold prices, very clear cases of exceptional merit must be proven to obtain approval of an increase and irrefutable evidence must be supplied to support the need for such increase.

### Consumer Goods Cut

Second quarter allocation of controlled materials display the cuts which were forecast. Consumer durable goods are cut 10% over the first quarter. Building materials have been curbed to allow approximately 600,000 new home starts in '52 but James C. Downs, president of the Real Estate Research Corp., has predicted that by the use of satisfactory substitutes this figure can be stretched to 900,000.

The Industry Advisory Committee to the Containers Division of NPA met on January 8th and were informed, according to reports, that propane cylinders would be cut about 8% in the second quarter.

The Industry Advisory Committee to the Heavy Metal Tank Section of NPA was called to an emergency meeting on Jan. 11th. Reports are that whereas a cut of 10% was forecast for the second quarter, the committee was informed that advance allotments exceeded the available steel; that larger cuts could be expected and that nothing would be available for supplementary allocations.

The Automotive Industry is cut 7%

over the first quarter. Allotments for valves and fittings, transformers and heat exchangers are increased in the second quarter but this is to provide for increased defense demands and contains smaller proportions for industry.

To aggravate the whole situation, delay in the delivery of Controlled Materials has been extended, due to over-allotment. 20% of the aluminum and 15% of brass mill products allocations for the first quarter are not expected to reach the mills until April 1st. Some specific cuts are to be made in the second quarter in aluminum, copper, steel plates and structural shapes to eliminate this "slippage" resulting from over-allotment.

Military requirements are on the upgrade. In the second quarter, direct defense contracts for this purpose will take 12% of all steel; 22% of all copper and 40% of all aluminum.

To note this growth by comparison, 1952 second quarter military allotments over the fourth quarter 1951 have increased in steel 34%; in copper 50% and in aluminum, 60%.

All phases of industry operating under PAD regulations have been requested to forecast requirements as far into the future as possible to provide that agency with ample data for requirements to DPA.

Operating companies in this category are also urged to note that many applications received at PAD under M46 have been submitted without the required certification. This must appear on each purchase order.

### Fuel Shortage

On Jan. 18, the LPGA Defense Advisory Committee met in Washington to consider reported shortages of fuel and a reported threat of a limitation order on house heating. The meeting found that actual shortages were confined to a small area due to specific causes not related to the over-all



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1952



condition of the industry; that 1% of one month's production would have plugged the holes; that product to do this was available if time and economics could have been adjusted to the situation. The meeting voted to submit opposition to any limitation.

#### Forecasts for 1952

In the month of November, 1951, the latest for which we have figures, business inventories dropped one hundred million dollars. With new production cuts ahead, with inventories running down there is also much new production of raw materials. Forecasts for 1952 on the whole indicate that business will still be generally good, but some specific lines will suffer. These will probably be the users who can find no substitutes for copper, steel and aluminum and more particularly, copper.

Among the essential and less essential items, as defined by NPA, we believe the liquefied petroleum gas industry to be essential. Among the defense and defense supporting industries, we believe the liquefied petroleum gas industry to be a direct defense supporting industry generally and we know it to be a direct defense industry in many instances.

Heat for the home, fuel to prepare and refrigerate food, and to heat domestic water are essential to human life. Wars are not won on raw food and dead people don't manufacture munitions, produce the material therefor, or the food to support the nation. But the place of the LP-Gas operator in this economy has not become clear to the Government.

#### Rated, Non-Rated Orders?

Second quarter applications for controlled materials require the manufacturer to separate rated and non-rated orders and the average LP-Gas installation is not rated. This means

the manufacturer cannot expect materials to supply these requirements.

Again, we refer to the Office of Civilian Requirements, Defense Production Authority, Washington 25, D.C., as the place where the LP-Gas operator should tell his story. A letter from you explaining your operation, your essentiality to your consumer and your requirements would help tell the story of the industry to this important agency.

#### Phillips Petroleum Issues New Bi-Monthly Publication

"Philgas Time" is a new bi-monthly publication of the Phillips Petroleum Co. edited by W. H. Guthrie and intended for Philgas distributors.

The first issue, for November-December, featured articles on dealer operations, water heating, adequate storage, power, and service problems.

According to Editor Guthrie, the purpose of "Philgas Time" is "to help you more profitably sell more Philgas." In the future, the publication will carry articles on advertising, sales promotions, sales programs, and ideas for selective selling. Additional material will cover operating matters, service suggestions, and good safety practices. Industry trends of significance will be presented for reader analysis.

#### DeLaughter Brothers Buy Southwest Butane Firm

DeLaughter Brothers, of Sparkman, Ark., has bought the Southwest Arkansas Butane Gas Co. agency in Arkadelphia from Herman Hankins.

C. L. Childers, formerly with the butane agency at Des Arc, will be manager of the office. Mr. Hankins has been owner of the business since 1946.

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**REMEMBER THESE POINTS:** Every Harrisburg cylinder is rigidly tested and inspected, including hydrostatic testing to 480 p.s.i. Every Harrisburg cylinder is built to I.C.C. Specification 48A-240. And every Harrisburg cylinder is made to last.

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Custom-Built Quality Products in Quantity  
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# Artificial Drying Makes Money for the Farmer

**P**EANUT drying is a big business in Texas and other peanut growing areas, and also a very lucrative one for the operators of the commercial dryers.

In order for the farmer to take advantage of the government support price, the moisture must be kept down to a minimum. The support price is set at a certain level and for each point of moisture above that the grower is docked so much but on the other hand for each point below the predetermined level, he gets a bonus of a certain price.

## Rainy Season Always Comes

About the time peanuts are ready for harvest the rainy season is apt to get under way. This, of course, is good for the commercial dryers but hard on the farmer.

In this area, commercial dryers charge from 30 to 40 cents per 100 lbs. for drying, usually on a 4-6 moisture reduction. It is easy to see that a farmer with a few hundred acres pays out a goodly sum each year.

On every peanut application where a Farm-Mor dryer is used the total operating cost is in the neighborhood of 32 to 34 cents per ton. This, of course, does not include labor for stacking but that too is minor. This is based on L.P.

**By CHARLES F. BISHOP**

Bishop Engineering Co.,  
Dallas, Texas

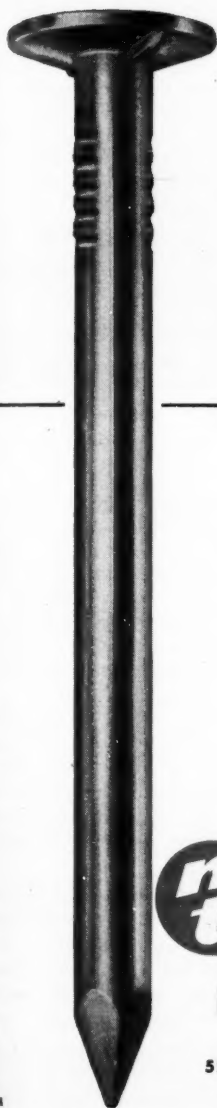
gas price at 11 cents per gallon.

One commercial peanut buyer uses a dryer to good advantage by drying the peanuts right in the box car at the railroad siding, thus eliminating any extra handling. The peanuts are stacked in the car to form a tunnel by piling the sacks about four high and close enough together so that a sack laid longways can form the top, or arch, of the tunnel. This is brought to the door of the car and the canvas is made fast so that the heated air is forced through the tunnel and through the sacks, carrying off the moisture. Both doors are kept open and the cross draft carries off the moisture-laden air. When brought down to the desired moisture content, the dryer goes on to the next car and does the same thing.

A Farm-Mor F-240 can handle about two to three cars a day, depending on the incoming moisture. Usually from 30 to 40 thousand pounds are put in a car.

Other crops have been successfully dried this way, including sacked peas, soy beans and baled hay.

Another variation of peanut drying is shown where it is handled



# Nail

**down future sales with  
NORRIS-THERMADOR  
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Steel shortages and allocations will definitely reduce tank and cylinder production this year. Nail down future gas and appliance sales with Norris-Thermador cylinders! Order now for immediate delivery and have a supply on hand to make installations even when you cannot obtain cylinders and tanks promptly.

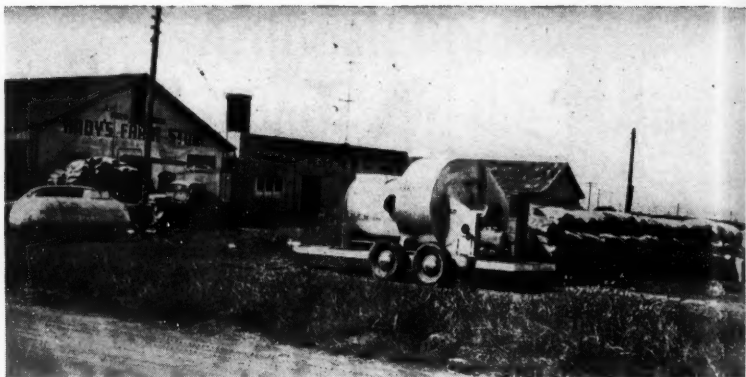
Norris-Thermador cylinders meet or exceed ICC Code 4BA-240 in all respects. Norris-Thermador Corporation is a company with over 21 years of experience in cold drawing and fabricating steel products. You can rely on Norris-Thermador light-weight cylinders for strength, safety, and long life.



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Drying grain after it has been sacked.

in sacks right in the middle of the field.

These dryers have complete safety and temperature controls and are equipped with L.P. gas carburetion.

#### **Making Hay Pay Big**

Without exception, hay crops undoubtedly suffer more than any other crop from weather, insects and other sources beyond the control of man. Now, thanks to the new science of artificial drying, this loss can be practically eliminated by choosing the time you want to harvest the crop.

There is no better way to handle this than to use a dryer especially designed for L.P. gas.

Using L.P. gas, no heat exchangers are necessary as the products of combustion are not harmful to the crops. This results in economy. As drying of hay and other crops

usually results in high static pressures, the dryer uses the most efficient type of blower to work against these, the backward curved type. Gas is easily controlled for both temperature and safety and the Farm-Mor is fully equipped with 100% shutoff in event of flame or mechanical failure.

Drying hay can be done in several ways. The portable unit usually handles it in a wagon or in bales. In the wagon method it can be either long or chopped, the latter, of course, offering a better drying medium.

Drying it in bales can be handled in two ways. Either the bales can be stacked in the open so as to form a tunnel and the cracks chinked up to eliminate the escape of air, or it can be stacked on a slatted floor four to five bales high and the air forced through it. A Farm-Mor F-240 can handle about

# HEAVY-DUTY TORCH WITH PLENTY OF SALES POTENTIAL—

## *Ransome 70LVS*

### *Easy to Sell... Builds Fuel Business*

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Weed burning  
Backfiring  
Asphalt patching  
Pipe bending  
Disinfecting dairy barns,  
poultry houses, hog  
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#### PROSPECTS

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Here's a lightweight, heavy-duty LP-Gas burning torch that produces an extremely stable flame—does not blow out in drafts or high winds; no suffocation of flame even in close quarters. 33½" long, yet weighs only 2¼ lbs.

RANSOME 70LVS is capable of continuous high capacity operation on heavy-duty work. Burns 50 minutes on one gallon LP-Gas at 10 lbs. pressure. Most users buy gas in small containers that gross ⅓ to ½ more than bulk gas, and are first-rate prospects for other industrial and household equipment using quick-starting, safe, clean LP-Gas.

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*Designing & Constructing Engineers*

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450-600 bales each 24 hours, depending on the incoming moisture content.

To best handle it artificially it should be cut as early as possible in the morning. On an average it contain 75%-80% moisture and if left in the swath for four to five hours this will reduce to 45%-50% on a fair day. It should then be windrowed, using only half of the side delivery rake so as to turn the bottom side up. After about an hour in this position it can either be baled or chopped, as desired.

This should take place at around 35%-40% moisture as this is before leaf shattering takes place. The dryer should then be started with the temperature set at approx-

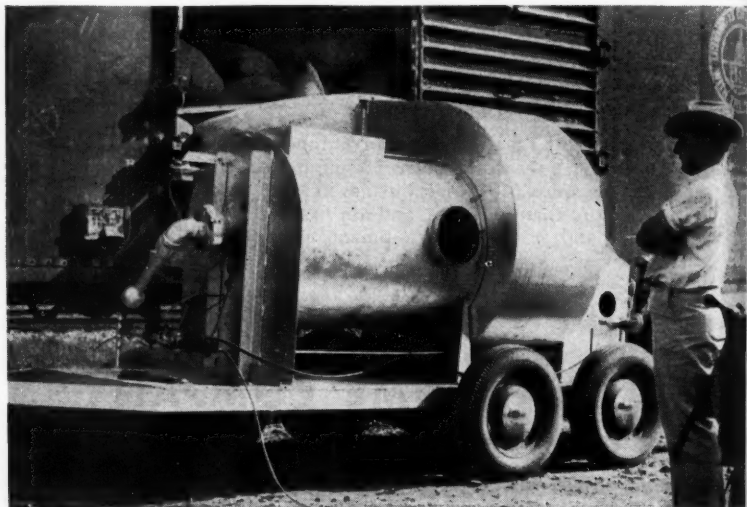
imately 150°-160°. This will result in good green hay insuring high carotene value and retention of the leaves which contain most of the food value. One bale of this hay is worth more than four of field cured.

We have hay cured last summer that still retains good color and holds its leaves.

#### Dehydration of Cattle Manure

The Farm-Mor dryer has been put to an unusual but highly successful operation by the Gro-Tex Co., of Houston, Texas. This is the dehydration of cattle manure which is then packaged and sold commercially.

This company, owned and oper-



Drying peanuts after loaded into boxcar.



# The Bottled Gas Manual

*352 Pages of Answers to every day questions about Liquefied Gases*

Written by C. C. Turner, noted authority this manual is invaluable to DEALERS, SALESMEN, and SERVICEMEN handling Butane-Propane Equipment and Appliances.

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## BUTANE-PROPANE News

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ated by W. A. and D. C. Bownds, has seen the need for weed, seed and disease-free manure for the nurseries and small landscaping operations and have developed it from a thought into a growing business. The manure is packaged under the trade name of "Gro-Nure" and is for sale by the supermarkets and chain stores in this area.

The Gro-Tex Co. has a reasonably small investment insofar as the drying equipment is concerned. They handle about two tons every two hours if the moisture percentage of the incoming manure is in the neighborhood of 25%-30%.

The manure is gathered from neighboring dairies and is stockpiled near the dryer. The longer it can be stocked the less moisture they have to remove. Before putting it on the drying bed or screen, it is run through a shredder and cut into fine particles. The ideal size is about that of a small marble.

It is then put on the drying bed and heated until the temperature in the manure column is approximately 200° F. Not only does this heat kill all wild insect life but it kills wild seed germination as well, thereby insuring the ultimate user that he will not get weeds in his garden from the fertilizer. In addition to this sterilizing process, it is dehydrated at the same time.

### **Earle Clifford Named Head, Gas Technology Department**

Earle A. Clifford, well-known in the LPG industry for many years, assumed duties as head of the Gas Fuel Technology Dept. at Southern Tech-

nical Institute on Jan. 17, according to L. V. Johnson, director of the school.

Mr. Clifford formerly served as service engineer, district sales representative, chief of the engineering department, and educational director with Utilities Distributors, Inc., Portland, Maine, and as chief engineer of the National L-P Gas Institute, Tulsa, Okla.

### **Wm. H. Brooks is Manager Tank Fabricators' Committee**



WM. H. BROOKS

Appointment of William H. Brooks as executive manager of the newly organized tank fabricators committee, operating under the administration of the Tank Fabricators Section of the Liquefied Petroleum Gas Assn., is announced by

Fred A. Henninger, Charlotte Tank Co., Charlotte, N. C., chairman of the group.

His headquarters will be in Washington, D.C., and his immediate duties will be concerned principally with the procurement of steel and other critical materials for the production of LP-Gas storage tanks.

### **Arkansas Gasman Passes Away**

Calvin Walker, 56, bookkeeper for Rison (Ark.) Butane Gas Co., passed away Oct. 29.

At one time Mr. Walker was treasurer and county clerk of Cleveland county, Arkansas.



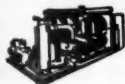
**P**ioneers in the development and manufacture of LP-Gas systems.

Since 1918—manufacturers of petroleum and chemical processing equipment.

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## ASSOCIATIONS



H. C. TENBROOK



W. A. SCHUETTE

### LPGA 1952 Convention

Plans are rapidly shaping up for the 1952 convention and trade show of the Liquefied Petroleum Gas Assn., according to H. C. TenBrook, president, Ready Flame, Inc., Kokomo, Ind., who is chairman of the arrangements committee. The annual event, scheduled for May 12-14 at the Palmer House, Chicago, is expected to attract more than 2500 persons, a new all-time high record.

I. W. (Pat) Patterson, vice president and sales manager of the General Gas Corp., Baton Rouge, La., is the first speaker to be announced for the convention program. He will discuss sales methods and sales training at the meeting of the Marketers Section on May 14. W. A. Schuette, president, Hausgas, Inc., Washington, Mo., is chairman of this section.

Additional exhibit space at the 1952 trade show will make it the largest exposition of L.P. gas appliances and equipment in history. All of 161 display booths are already under contract to manufacturers.

### Arkansas

The Arkansas Butane Dealers Assn., at its mid-winter meeting recently, expressed strong opposition to a proposed 30% increase on insurance rates for "long haul" trucks in Arkansas, and prepared to fight any proposed legislation of this type in the 1953 legislature.

President Joe M. McKim of Springdale, Ark., said that several insurance firms have filed applications for such an increase in rates, charging that the number of accidents in the state is increasing and that less-experienced drivers are replacing younger men called into military service. Such a rate increase, he said, would have considerable effect on butane gas dealers who supply individual customers entirely by truck.

The association also approved a resolution making group health and accident insurance available to all dealers, their employees and dependents. The association will hold a "master policy" and individuals will become members on a voluntary basis.

About 200 dealers and employees

from Arkansas and adjoining states attended the one-day meeting Jan. 12 and shared in round table discussion of such industry problems as provision of adequate storage by consumers to prevent possible shortages.

## Kentucky

Plans are being made for the fifth annual convention and trade show of the Kentucky Liquefied Petroleum Gas Assn. by the convention committee chairmanned by Miss Frances Holliday, secretary of the association.

Convention dates are Aug. 18-19 and the place is the Seelbach hotel in Louisville.

According to Melvin E. Gayer, chairman of the trade show committee, reservations are now being taken for display space.

Members of the various convention committees include: R. N. Short, president of the group, L. T. Dixon, James Varnado, C. E. Nead, Dick Morgan, and Lee F. Tinsley. Members of the ladies' entertainment committee include Mrs. R. N. Short, Mrs. L. C. Stauble, Mrs. Randolph Long, and Mrs. Harold Gravies.

## LPGA District Conventions

Two important regional conventions of the Liquefied Petroleum Gas Association will be held in March. LPGA's Southeastern District has scheduled its annual session for March 24-26 at the George Washington hotel, Jacksonville, Fla., and the Central States District has selected March 31 through April 1 as the dates and the Broadview hotel, Wichita, Kan., as the location for its yearly conclave. Trade shows will be featured at both conventions.

Upwards of 600 persons are expected at the Southeastern gathering. Speakers tentatively announced for



MARK ANTON



TOM FIELDS

the program include W. S. Lander, Rulane Gas Co., Charlotte, N.C., president of the association; Mark Anton, president, Suburban Propane Gas Corp., Whippany, N.J.; Elmer Wheeler; Howard D. White, LPGA executive vice president, Chicago, and M. A. Ennis, employe training director, National Committee for LP-Gas Promotion, Chicago. A nationally prominent political figure and a representative of LPGA's newly organized Gas Fuel Technology Foundation committee have also been invited to speak.

Annual meetings of the North Carolina, Georgia, South Carolina and Alabama state L.P. gas associations will be held at the convention on the morning of March 25 and a special breakfast for manufacturers is scheduled for March 26. R. C. Woodward, Jacksonville, Fla., heads the arrangements committee; A. W. Spiller, St. Augustine, Fla., is entertainment chairman and Luke H. Ernst, Atlanta, Ga., chairman of the friendship committee. The association's district secretary is T. G. Fields, Atlanta.

Program plans for the Central States convention have not yet been announced, but a joint committee representing the Kansas and Oklahoma state associations is preparing for the event. Members of the group are Walter Nixon, Tulsa, co-chairman;



ROBT. TANNER



J. L. GRIGSBY

A. C. Ferrell, Atchison, Kan., co-chairman; W. J. Alexander, Oklahoma City; J. L. Grigsby, Oklahoma City; J. D. Howard, Elk City, Okla.; Grover Pierce, Duncan, Okla.; George N. McClellan, Salina, Kan., and A. C. Ambrosia, Wichita. Robert Tanner, Wichita, is district secretary.

## Texas

Plans are being made for the seventh annual convention and second annual Southwest butane exposition of the Texas Butane Dealers Assn. scheduled for Dallas June 18-20.

Trade exhibits will be in the ballroom of the Hotel Adolphus where space for more than 50 standard-size exhibit booths is available. Other convention activities will center in the Baker hotel.

The show, dedicated to five states—Texas, New Mexico, Colorado, Oklahoma, and Louisiana—is expected to draw the attention of large numbers of independent dealers from those localities.

Within a short time speakers and their subjects will be announced, according to Bill Lawson, executive secretary of the TBDA.

## Minnesota 4th Service School In St. Paul March 24-26

The University of Minnesota office of agricultural short courses will conduct its 4th annual liquefied petroleum gas service school, March 24-26. Arnold M. Flikke, of the division of agricultural engineering, is chairman of the committee on arrangements. This school is conducted by the university with the cooperation of the L.P. Gas industry.

The cooperators include the Liquefied Petroleum Gas Assn., the National Butane-Propane Assn., the Minnesota Petroleum Gas Assn. and others.

The school is open to anyone connected with, or interested in the installation and servicing of liquefied petroleum gas equipment and appliances. The school will give new men in the industry a better insight into the fundamentals of L.P. Gas appliances and equipment and will serve as a refresher course for older employees.

Emphasis will be placed on bulk installations and equipment such as controls, which are used on the farm and in suburban homes. This, plus utilization equipment, domestic controls, tools and measuring instruments, and flame control, constitutes the technical part of the course.

In addition to these, there will be lectures on fundamentals, safety, and customer relations.

The registration fee of \$12 will entitle each registrant to a copy of the lectures and proceedings. This will be bound and mailed to each registrant after completion of the course.

Dormitory space will be available at University Farm for \$2 per night per person.

All inquiries regarding the school should be directed to the Short Course Office, University Farm, St. Paul 1, Minn.

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**METERS**

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## CALENDAR

- Feb. 17—Nevada Liquefied Petroleum Gas Assn. Semi-Annual Meeting.
- Feb. 25-26—Indiana LP-Gas Assn. Hotel Claypool. Indianapolis.
- Feb. 25-26—LPGA Board of Directors. Del Prado Hotel. Mexico City, Mexico.
- Feb. 29—NGAA Permian Basin Regional Meeting. Lincoln Hotel. Odessa, Texas.
- March 17-19—Mountain States District Service School. University of Denver, Denver.
- March 20-21—LPGA Eastern Canadian District Annual Convention. Windsor Hotel, Montreal, Quebec.
- Mar. 24-26—LPGA Southeastern District Convention. George Washington Hotel. Jacksonville, Fla.
- March 24-26—University of Minnesota LP-Gas Service School. St. Paul.
- March 31-April 1—LPGA Central States District. Broadview Hotel. Wichita, Kan.
- April 3-5—Florida L. P. Gas Assn. & Florida-Georgia Gas Assn. Combined Convention. Sorento Hotel. St. Petersburg, Fla.
- April 7-8—Montana L. P. Gas Assn. Great Falls.
- April 7-9—Missouri L. P. Gas Assn. Annual Convention & Trade Exhibit. Hotel President, Kansas City.
- April 9-11—Midwest LP-Gas Service School. Iowa State College, Ames.
- April 13-15—Mississippi LP-Gas Assn. Annual Convention. Edgewater Gulf Hotel. Edgewater Park.
- April 14-18—LP Gas Managers' School. University of Kansas. Lawrence.
- April 23-25—South Dakota L. P. Gas Assn. Convention. Marvin Hughitt Hotel. Huron.
- April 30-May 2—Natural Gasoline Assn. of America. Rice Hotel. Houston, Texas.
- May 12-15—American Petroleum Institute, Division of Refining. Mid-Year Meeting. St. Francis Hotel. San Francisco.
- May 12-14—LPGA Annual Convention & Trade Show. Palmer House. Chicago.
- May 21-23—Gas Appliance Manufacturers Assn. Annual Meeting. The Broadmoor. Colorado Springs, Colo.
- June 8-10—Arkansas Butane Dealers Assn. Annual Convention. Little Rock.
- June 9-13—Southeastern LPG Service School. Georgia Institute of Technology. Atlanta.
- June 18-20—Texas Butane Dealers Assn. Baker & Adolphus Hotels. Dallas.
- June 23-24—Wyoming L. P. Gas Assn. Casper.
- Aug. 18-19—Kentucky LP Gas Assn. Annual Convention and Trade Show. Seelbach Hotel. Louisville.

## Cities Service Storing Propane Underground

An underground LPG storage cavern near Lowell, Mich., has recently been completed by Cities Service Gas Co. for the winter storage of 1,000,000 gals. of propane. Propane is withdrawn from storage at the rate of approximately 200 gals. per minute.

When this winter's demand for fuel has depleted the gallonage now stored, the cavern will be expanded to the point where it will hold 4,000,-

000 gals. The cavern, located in a massive salt deposit, was drilled last April to a depth of 3798 ft.

Short-haul deliveries to consumers by truck transport or in bottles are planned. A small amount of above-ground storage is located at the plant together with bottle filling, truck and rail-loading facilities.

Other underground storage projects are being studied by Cities Service which, through joint ownership in other plants, has such facilities at several gasoline plants in west Texas.

# Six Strategic Steps to Selling

By ERNEST W. FAIR

A GOOD field general outguesses the enemy, strikes his weak point, and reaches his objective.

A good salesman out-thinks the enemy (sales-resistance) and gains a sale.

Rules for strategic selling are legion. The salesman with his nose in the rule book soon discovers that "the battle didn't go according to plan" and for lack of a little horse-sense he has lost another sale.

However, within every set of rules there will be an affirmative answer to the following six questions. If the answers are negative, the sales average will be correspondingly low.

Using these questions in a process of post-sale (or no-sale) self-analysis, the salesman should be able to determine his strengths and concentrate on removing his weaknesses.

1. "Was the prospect first made to realize his needs for what I sought to sell before I tried to sell him?"

In our zeal to put the finishing touches to a sales argument, we are often tempted to put the cart before the horse and attempt a closing argument. The first step in making any sale is to make the customer fully

aware of how much he needs what we are trying to sell. Then positive selling becomes easier and ordinarily the customer will work as hard as we do at closing the sale.

When the salesman fails to bring this realization home to his prospect he generally loses the sale. Bringing it home requires an understanding of the customer and how the merchandise he is seeking to sell fits into that customer's scheme of things.

Seldom can a salesman convince a customer of his need for something unless that salesman is convinced himself. When this preliminary step has been taken the salesman's every statement will have a positive ring of sincerity.

2. "Was the customer's name an important part of the interview?"

The most important thing a man owns is his name. When a salesman mispronounces it, fails to mention it at all, or speaks it without due respect, he has created a formidable sales hurdle.

Just as the customer's name is a most important part of the interview or sales conversation, so also is the customer himself all-important . . . so also is everything he owns or has anything to do with . . . so also is the use he specifically has in mind for the appliance under discussion.

A veteran and successful salesman never forgets his prospect's importance as an individual. Every time he has done so in his experience it has cost him a sale, and the good salesman seeks to make every sale . . . not just a good average.

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Apply the author's six questions to your last unsuccessful sale and the chances are you will come up with some new sales weapons. An appliance salesman should periodically "take the load off his feet," relax in an easy chair, and analyze his selling action as related to specific cases. In this way he can increase the strengths and minimize the weaknesses of his selling methods.

3. "Were questions asked by the salesman so designed as to give the customer an opportunity to express his views?"

One of the first things we learn in selling is that it is always easier to let the customer sell himself, if possible, and the best way to do this is to direct questions to which the customer can volunteer opinions in answer that might lead toward confirming the sale.

It is equally true that if we fail to do this and never give the prospect an opportunity to express his views, we will have to pay the price of a sale, or a sale made much more difficult.

Many sales failures occur at this hazard . . . the salesman never gave the customer an opportunity to talk.

#### Give Customer a Chance

The old "bowl-'em-over" type of selling still works at carnivals but is definitely out of place in business. A good salesman today finds results most effective when the customer has an opportunity to express his views.

Such expressions are always good leads. People talk about the things that interest them . . . the things that interest them about the merchandise in question are the points that will sell them upon its purchase.

4. "Did I concentrate heaviest on the point of most interest to the customer?"

Sometimes we may have a number of reasons for purchasing something; more often we buy an item or a product for one good and specific reason and the others are, though they may be contributory, of little importance.

When the salesman has discovered that point of greatest interest to the prospect, he has a clear path down which to drive his sale.

Nothing is more difficult than hav-

ing to sell a half-dozen people in a single sale; conflict of interests is too great. The same applies to a single customer. Good strategy calls for the discovery of his point of greatest interest at the earliest possible moment and then consistently to bring his attention back to this all important factor upon which the sale will be made or lost.

5. "Did I succeed in clarifying each point in the customer's mind before proceeding to the next sales argument?"

#### Left Sales Points Unexplained

Every salesman has lost sales and could not for the life of him figure out the reason why the sale was lost. The chances are good that some of these sales were lost because the salesman slid over a point in question and that point nagged at the customer's mind until a barrier was raised through which the salesman's further argument could not reach.

Take each sales point by itself . . . clear it up to the complete satisfaction of the customer.

6. "Did I ask for the sale or just hint for it?"

After a sales argument has been expended it is often easy to avoid a purchase when the salesman does not request a definite "yes" commitment . . . if the sales argument has been a little weak this is an open gate to the customer seeking to escape. It's much easier to slide away from a hint than a positive request to buy.

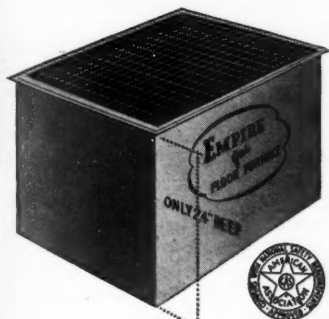
Many a sales presentation has been ruined because the salesman failed to ask outright for the sale or order at its conclusion.

The strategic selling steps contained in these six questions are equally important. A salesman who can consistently answer them in the affirmative should do an effective selling job.



# THE *Easy* WAY WITH EMPIRE

## GAS FLOOR FURNACES



- *Easy* TO SELL
- *Easy* TO INSTALL
- *Easy* TO SERVICE
- *Easy* ON GAS BILLS

Empire floor furnaces are easy to install and service—no expensive excavation is necessary, no air ducts are required.

Low first costs, plus low operating cost, provide greater customer satisfaction and increased sales.

FEATURING *The* FAMED

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Gas  
BURNER



See your local EMPIRE REPRESENTATIVE or write direct to

**STOVE COMPANY**

BELLEVILLE, ILLINOIS

WORLD'S LARGEST MANUFACTURER OF Gas FLOOR FURNACES

# PRODUCTS

## Tube Bender

IMPERIAL BRASS MFG. CO.  
1200 W. Harrison St., Chicago.

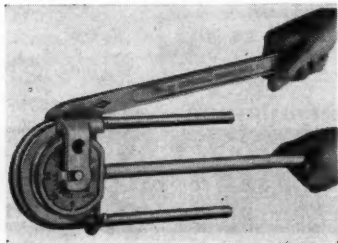
### Model: No. 362-F, 2-in-1 Tube Bender.

**Application:** For bending both  $\frac{1}{2}$  in. ( $\frac{1}{2}$  in. nominal) and  $\frac{3}{8}$  in. ( $\frac{1}{2}$  in. nominal) O. D. copper, aluminum, brass, and other soft, thin-wall metal tubing.

**Description:** The bender has a dual size shoe and mandrel which permits bending two different sizes of tubing without changing any parts.

It is of 2-piece construction, comes apart quickly, and slips over the tube at the point where the bend is needed. Thus, it can be used to bend tubing where one end is connected as well as where both ends are free. The tube bender, according to the manufacturer, will not mar nor deform tubing.

Removing the bender from the tubing is simplified as a result of the 2-piece construction. Bends can be made to any angle up to  $180^\circ$ . The bender is calibrated to show degree positions. Overall length is 21 in.; weight is 3 lbs. Steel and aluminum construction is featured.



## Wall Heater

PERFECTION STOVE CO.  
7609 Platt Ave., Cleveland 4, Ohio.

### Model: RW-10.

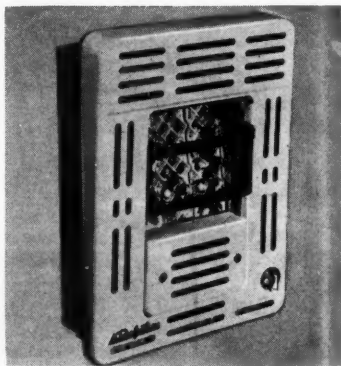
**Application:** Designed particularly for use in small areas such as bathrooms, dens, etc.

**Description:** This unvented wall heater has an output rating of 10,000 Btu. It has three radiants, producing instant radiant and circulating heat.

A constant flow of cool air through the lower louvers insulates the sides and back so that the wall never gets hot.

A self-locking gas valve is insurance against gas being turned on accidentally.

This heater, with white porcelain enameled, heavy gauge steel casing, is easy to install in walls of new or existing structures, where it is an out-of-the-way yet ready source of heat.



## Combustible Gas Alarm

JOHNSON-WILLIAMS, LTD.  
2672 3rd St., Palo Alto, Calif.

### Model: EE

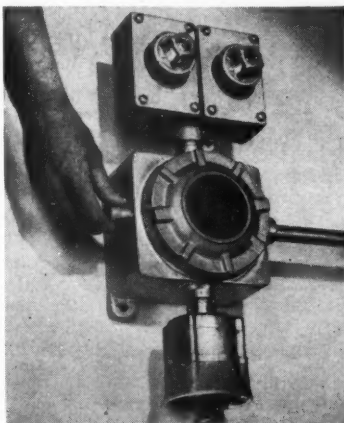
**Application:** Particularly useful in unattended stations, this alarm can be installed in L. P. gas plants, pipeline pumping stations, and industrial and commercial areas where gas is used, stored, or handled.

**Description:** The alarm's sensing element is in a bell-shaped cover housing, is weather-proof, as are all parts of the unit. Explosion proof construction is featured.

Presence of explosive vapors is signalled by a red indicator light and by remote alarm units which can be connected to terminals provided. The standard alarm point is 0.2 of the lower explosive limit. Other values can be provided, however. Either self-reset or lock-in arrangements are available to give a choice between an on-off indication

of gas, or one which must be manually reset after release of alarm.

No meters or meter-type sensitive relays are contained. An electronic trigger-tube circuit converts sending-unit signals into alarm indications. The alarm is a-c operated.



## Product Information

H. C. Little Burner Co., Inc., San Rafael, Calif., manufacturers and distributors of oil-fired furnaces and heating equipment for more than 23 years, recently went into production on a complete line of gas-fired furnaces and gas conversion burners.

The automatic, gas-fired line, AGA approved for LP gas, includes adjustable conversion gas burners; floor furnaces in six capacities, available with dual registers or a single wall register; basement and closet-type furnaces; horizontal type furnaces

for attic, under floor or suspended installation; and gravity furnaces.

Catalogs and specification sheets are available from the company at San Rafael, Calif., by requesting the "Gas Furnace Literature."

Many new type cylinder valves for L. P. gases, as well as oxygen, hydrogen, nitrogen, carbon dioxide, etc., are being marketed by Pacific International Products, Inc., San Marino, Calif.

Design features include close tolerance precision manufacturing, specially treated surfaces for long life and

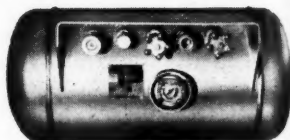
# Master Tanks *for*

## SAFETY • QUALITY ECONOMY



100#  
I.C.C. CYLINDERS

The construction of Butane-Propane Tanks is big business and Master Tank and Welding have the facilities and experienced personnel to meet all requirements. Our huge plant extends over 36 acres, where we produce quality pressure vessels and Butane-Propane Tanks of all sizes. Write, wire or phone us about your tank problems.



### FUEL SYSTEMS

Stock items range from 15" diameter by 31" long with 20-gallon capacity through 24" by 60" long with 103-gallon capacity. Special sizes on request.



### DOMESTIC SYSTEMS

Only one of our many tanks. A new 500-gallon Propane tank that meets all demand requirements. Compact fitting arrangement liquid withdrawal in top and bottom. Many other sizes of Butane and Propane Tanks of U-69 construction for above or underground.



20-LB. I.C.C.  
CYLINDERS



*also* Storage Tanks  
Truck Tanks

Refinery Equipment  
Anhydrous Ammonia  
Vessels

200# PROPANE CYLINDERS  
200# W.P. U-69 A.S.M.E.  
57 Water Gallon Capacity.



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easy operation, and a hand wheel designed for an easier, non-slip grip. Both the diaphragm in the diaphragm high pressure valve and the Teflon packing in the packed type valve can be changed under pressure.

Available valves include both diaphragm and packed type high pressure valves as well as "o" ring types for liquefied petroleum gases.

A pocket draft gauge, capable of detecting the slightest draft or pressure inside a furnace or over a burner, is available from the Bacharach Industrial Instrument Co., 7000 Bennett St., Pittsburgh, Pa.

The gauge can also be used for checking the draft at the relief opening of the draft hood.

The instrument, valuable to gas equipment dealers, installers, and inspectors, has a magnification of over 100, providing a sensitivity to detect pressure or draft which is equal to that of a match flame.

An 80% increase in the speed of top burners of Hardwick Stove Co. LPG ranges has been announced by the company. The increase will bring standard burners up to 9000 Btu per hour and giant burners to 12,000 Btu per hour.

The higher ratings, recently approved by the AGA laboratories, are reported to bring about far greater cooking speed on top of the range with boiling and frying time sharply reduced.

A new, heavy-duty plastic electrical tape designed for applications where more-than-average mechanical strength is needed is now being produced by Minnesota Mining & Manu-

facturing Co., of St. Paul, Minnesota.

The tape, designated "Scotch" brand electrical tape No. 21, is recommended for anti-corrosion protection for pipes, cables, and equipment laid underground where resistance to cuts and abrasion by rocks during backfill is important. It has a black, vinyl plastic backing that is 20 mils thick. The tape is available in 36-yard rolls, ranging in widths from 1/4 in. to 16 in.

Of interest to those needing a diverter for small boilers, 400,000 Btu and up, will be a new draft control designed to provide close regulation of drafts and safety protection for gas burners of this size.

The double-acting control, manufactured by the Field Control Div., H. D. Conkey Co., Mendota, Ill., prevents (1) wastage of heat due to excessive drafts, and (2) partially or entirely blocked flue from affecting the flame or causing dangerous conditions.

## Equipment Catalog

A 100-page catalog issued by Southwest Equipment Co. describes its line of equipment for domestic installations, automotive conversions and L. P. gas filling stations and its line of pumps, meters, brooders, appliances, tanks and cylinders.

In this catalog, the company, a wholesaler specializing in LPG equipment, gives detailed descriptions of the various lines carried. Of special interest is an LPG filling station, consisting of the fuel tank, pump, strainer, hose, and an optional gasoline engine.

Further details are available from Southwest Equipment Co., P. O. Box 390, Liberal, Kan.

# Dramatize Your Products To Your Own Sales Force

By JOE BAER

**O**PERATING upon the premise that a company engaged in selling to the public must dramatize its wares to its sales staff as well as to prospective customers to attract attention and create enthusiasm, Delaney's, Inc., of Birmingham, Ala., maintains a continuous round of meetings and demonstrations to awaken interest in its products and to aid in closing sales.

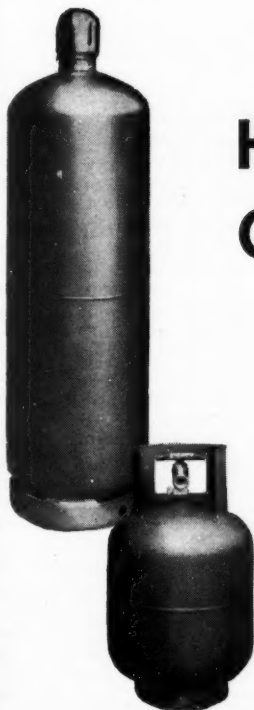
That the plan is basically sound is demonstrated by the firm's success in building volume during past years. This volume is represented by adding to the rolls an average of 500 new

L.P. gas customers per year. In 1951, 600 gas ranges were sold. Whenever appliances are sold to new customers the way is paved for complete gas systems and additional appliance units. As many as 500 space heaters and 400 floor furnaces have been sold in one year.

The aggressive merchandising program is under the direction of John A. McNeil, vice president and general manager, and W. K. Moore, sales manager. Now in its eighth year in



W. K. Moore, sales manager, Delaney's, Birmingham, shows the golf course method of dramatizing its sales stimulators.



# Here's the PROPANE CYLINDER for You!

Compare feature for feature and you'll decide to use PREST-O-LITE cylinders for liquefied petroleum gases—they are unquestionably the No. 1 quality cylinder. They lead the field because of their longer service life, light weight, uniformity of wall thickness, and superior design. You get the greatest overall saving. Sturdy PREST-O-LITE cylinders are backed by over 35 years of experience and skill in the development, manufacture and use of compressed gas cylinders.

Available in the popular 20-lb., 40-lb., 60-lb., and 100-lb. sizes, with or without valves. Other sizes or styles can be easily made to your specifications. The ventilated foot ring practically eliminates corrosion around the bottom of the cylinder. PREST-O-LITE cylinders undergo many rigid tests far beyond I.C.C. requirements, such as testing for leaks with dry air after the hydrostatic tests. Mail the coupon today.

**Prest-O-Lite**  
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L-P GAS CYLINDERS  
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## LINDE AIR PRODUCTS COMPANY

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Send full information about PREST-O-LITE  
cylinders for liquefied petroleum gases.

NAME.....

COMPANY.....

ADDRESS.....

the L.P. gas business, the firm operates within a 50-mile radius of Birmingham. To enable its gas customers to add appliances without difficulty, the firm pushes sales of 500-gal. tanks. This not only assures the customers an adequate supply of gas at all times, but also relieves the firm of installing such large bulk storage of its own.

Here are some of the factors that bring the firm its excellent results. New salesmen are given a two-day indoctrination period. Then they work in the field with an experienced salesman for one week. After that they are on their own.

Delaney's has about nine men in the 58-mile radius ringing doorbells to push gas and appliance sales.

#### **Weekly Sales Meetings Held**

Every Wednesday night the entire sales staff gathers in the home office for a weekly sales pep-up meeting and instruction. Talking about obstacles they have encountered and explaining arguments used to overcome sales resistance provide vital help to one another for future calls and better familiarize them with company policies.

A great help in paving the way for the "doorbell ringing" salesmen is a consistent advertising campaign; the firm spends 5% of its gross sales on advertising.

Another business-building method used successfully is the staging of cooking schools and carnivals in outlying areas. These are held in community halls or school auditoriums in small communities.

The company also promotes small kitchen parties in customers' homes at which members of a family and their friends gather for a meal provided by Delaney's. The salesman then has a chance to demonstrate his equipment in use before the small group.

At least once a year there is staged a one-week sales seminar. At these meetings leading members of the industry address the Delaney organization. Such typical subjects as "Selection and Installation of Furnaces," "The Importance of Equipment Controls," "Promotional Advertising," and others important to the gas and appliance salesmen are discussed by experts in the field.

To further stimulate sales, the firm conducts four or five contests a year. Salesmanager Moore dramatizes these in an interesting fashion. One year he put on a "Coast to Coast Air Derby." Towns along the route represented dollar volume of sales proportionate to the positions of the towns on the map. As salesmen reached various stages of their quotas their mythical airplanes were placed over the proper localities. Mr. Moore even arranged with some of the cities to have contesting salesmen receive guest cards from some official in that city. This novel device added zest to the contest.

Last year Delaney's staged a "Spring Style Show Open Golf Tournament." This did not involve an actual visit to a golf course but a salesman's progress in sales was dramatized by means of golfing terms and his progress was recorded week by week upon the golf greens set out on a huge wall drawing.

Such dramatizations play a major role in stimulating the firm's sales staff to ring up the highly successful sales volume that the company enjoys.

#### **J. E. Carey, Texas Gasman, Passed Away in November**

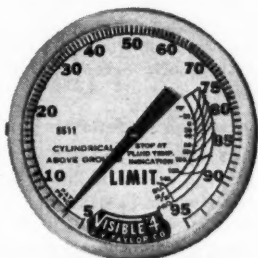
James E. Carey, 53, manager of the Federal Butane Co., Harlingen, Texas, died recently after a long illness.

Mr. Carey was born in Caddo, Texas, but had been a resident of Harlingen since 1919.

# THERE IS A **VISIBLE**

**MAGNETIC**

**FLOAT GAUGE**  
for Every LP-G Need  
including MOTOR FUEL  
TANKS & TRANSPORTS



**VISIBLE JUNIOR**

4-inch dial face. For large domestic, small storage and TRANSPORTS.

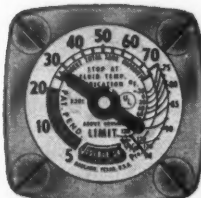
**MASTER**

10-inch dial face. For LP-Gas and Anhydrous Ammonia storage tanks.



**JUNIOR\***

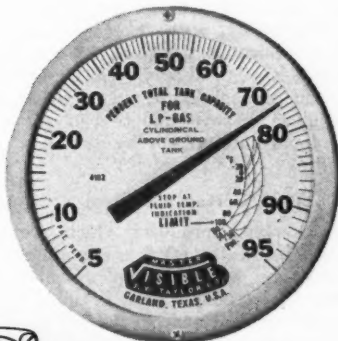
1 1/2-inch dial face



**SENIOR\***

2-inch dial face

\*For above or below ground domestic systems and MOTOR FUEL TANKS. Top, side, end or angle mount.



**SQUIBB**



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# Odorant In Gas Is Safety Precaution

**P**URELY as a matter of safety, L. P. gas stinks. Having almost no odor in itself, a strong smelling compound has been added to cause customers to complain of the odor if and when it is apparent.

Theoretically, no customer should ever smell L. P. gas. It should always be confined in a tight system until it is released for combustion. But leaks do develop. When they occur, an alarm is wanted, so the odorant is put in the gas to warn that there is a leak, and to aid in detecting its source.

The odorant must be very powerful so a very tiny leak will be detected before a dangerous amount of gas can accumulate. The material must be harmless to humans and neither toxic nor nauseating. It must burn completely, without odorous or other undesirable products of combustion. Its odor must be characteristic and unmistakable, in addition to being so disagreeable that it will cause immediate action by the customer.

## Ethyl Mercaptans Used

The odorizing products which are used are basically ethyl mercaptans and similar highly complex compounds of sulphur. This group of odorants was selected by the American Gas Assn. and the United States Bureau of Mines, following comprehensive tests conducted some 20 years ago. They are used in all natural and manufactured gas, as well as LPG.

One of the characteristics of these

mercaptan odorants is that there is a tendency for the odor to become stronger as the fuel level gets down toward the bottom of the tank or cylinder. Because of this, any slight leak in the system becomes more noticeable, and the highest number of complaints seems to be associated with the "nearly empty" condition of the container. In spite of this, it is important that all complaints of gas odors or gas leakage should be investigated immediately. Leaks seldom heal themselves—they almost always get worse.

## Correcting Complaints Is Simple

Analyzing and correcting odor complaints is very simple if it is done systematically. First, you want to know what kind of odor the customer is complaining about; second, where it is noticed; and third, when it is noticed.

Very often a customer will say that she notices the odor when she is using her oven. If the serviceman does not take the trouble to find out first what kind of an odor is involved, he may find himself going through a lot of unnecessary work checking the gas piping and controls, only to find that the odor was coming from some food spilled on the oven bottom, and there has not been any escaping gas.

Similarly, knowing where to look for the source of the odor may save valuable time in tracing down a leak. Knowing when the odor is noticed may tell the serviceman whether to



# PUT IDLE STEEL TO WORK



## ... to make NEW steel

Steel mills use *one* ton of iron and steel scrap in making every *two* tons of open-hearth steel.

But normal sources of iron and steel scrap can't keep up with demand. That's why the steel industry asks you to collect your scrap—in the form of obsolete, worn-out machinery and parts—and send it back to the mill.

Only with *your* help can current military and civilian production demands be met.

Start *your* scrap salvage program today—call in your local scrap dealer *now*.

**NON-FERROUS SCRAP IS NEEDED, TOO!**

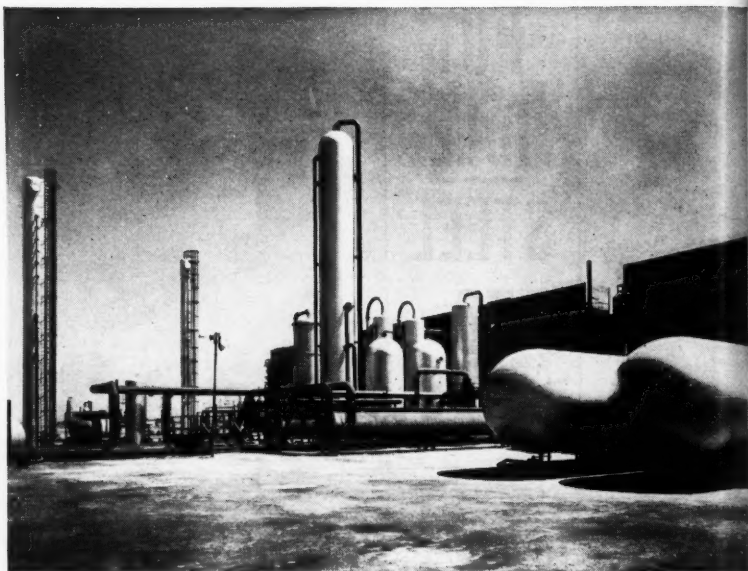
# BUTANE-PROPANE

## News

198 So. Alvarado St., Los Angeles 4, Calif.







Odorants are put in butane and propane at the refineries and natural gasoline plants where the fuel is extracted. This refinery is owned by Signal Oil & Gas Co., Huntington Beach, Calif.

look for an improperly adjusted burner, or if it might be a dry gas cock which leaks around the stem of the valve when the gas is turned on, but not when it is closed, or vice versa.

No discussion of this subject would be complete without the following cautions:

Never let a complaint of gas odors or leakage go without prompt attention. Check it and make the necessary corrections immediately.

Never use a flame of any kind to look for a leak. Use soapy water or some similar solution which will bubble up at the point of leakage.

Always connect a test gauge into the installation, and test the system as a whole, as your first and last steps in determining if a leak is occurring. In no other way can you determine that you have eliminated all of the leaks. It insures safety for yourself and others.

Never allow any source of ignition in an area where the odor indicates the presence of escaped gas until it is known that all leaks are corrected, and until the affected area has been freed of gas.

As long as you can smell gas, the only safe course is to regard it as dangerous. The odor is in the fuel to give you that warning.

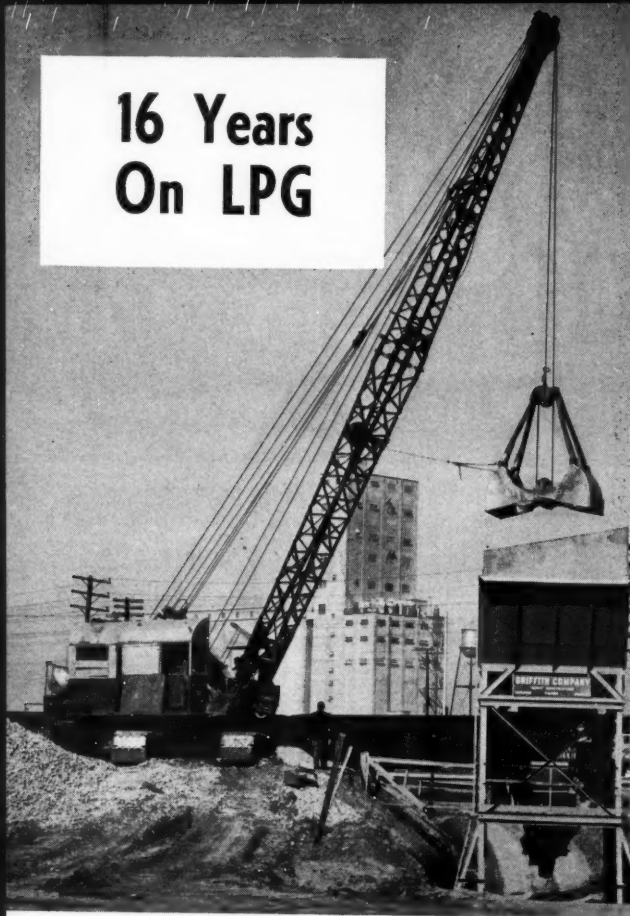
# POWER SECTION

Installations

Conversions



# 16 Years On LPG



Propane operated crane excavating for an underpass.

By CARL ABELL

**T**HIS is a progress report on a major fleet of trucks which has been using L.P. gas for more than 16 years.

The Griffith Co., construction contractors operating throughout southern California, started building the Cajalco Dam, near River-

side, in December, 1935. They assigned 30 new trucks, with 10-cu. yd. bodies and butane fuel systems, to the task of moving the 7,532,000 cu. yds. of earth required for the dam.

Based on the capacity and speed of the trucks, the preliminary esti-

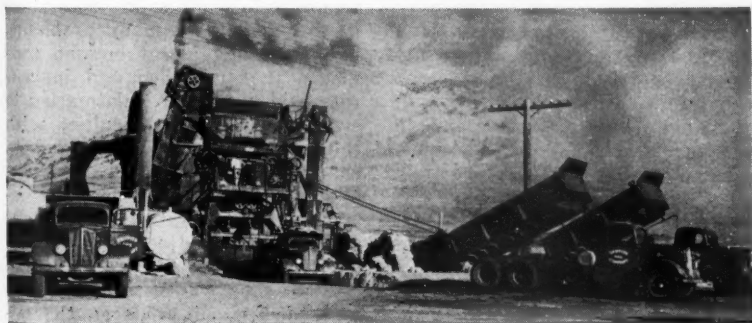
# Prove Operating Economies

mate called for three years' construction time. The converted engines handled their loads better than had been anticipated, and it was found that the loads could be increased to 13 cu. yd., and still maintain satisfactory operating speed. The job was completed one year ahead of schedule. The engines held up amazingly well, and the trucks were still giving satisfactory service several years after the completion of the project.

Griffith Co. still uses L.P. gas in a great deal of its equipment, including trucks, cranes, and stationary and mobile compressors. The fleet has grown considerably in the intervening years, and is now based in four different operating groups, located at the main plant in Los Angeles, and branch plants at Wil-

mington, San Diego, and Bakersfield. The basic operating economies which were apparent on the first job have continued—low fuel cost, longer engine life, less "down time" for engine repairs, and reduced oil consumption. These have been important factors in profitable operation.

Individual records are kept on each piece of equipment, and these reveal some rather surprising facts. Construction work is rugged business, and the equipment leads a hard and dirty life. It is necessary to protect the engines against the effects of dirt, and to this end each engine is provided with filters on the air intake, in the crankcase oiling system, and in the fuel lines. With these filters maintained on a systematic basis, phenomenal mile-



Ensign equipped White trucks fill up for "production line" paving operation at Griffith Company's Bakersfield hot-mix plant.

ages between major engine overhauls are quite commonplace.

About three years ago, one of the company's mobile cranes which was in almost constant service came in for an engine overhaul. The record showed that this was the first major engine job on this unit in seven years, and that the butane carburetion system had not been changed or repaired in that entire period. As it is the company's practice to overhaul the carburetion system at the time of the major engine overhaul, the fuel units were put through the shop. The regulator was found to be leaking slightly. It was exchanged for a similar unit rebuilt by the Ensign Carburetor Co. The replacement unit has been on the engine for over three years, and it and the engine are still going strong.

#### **Foresight Lessens Delays**

The L.P. gas carburetion equipment in the Griffith fleet gives almost no trouble. This is partly attributed to the maintenance practices in the fleet, which are unusual from a number of standpoints. Wherever possible, engine accessory units are maintained on an exchange basis. Equipment is standardized as far as is possible. Ensign carburetion equipment is used throughout the fleet. Extra units are available, so it is possible to remove a defective unit and replace it quickly with one which is in perfect working order. This applies to carburetors, regulators, generators, starting motors, distributors, brake chambers, and all of the other accessory units which

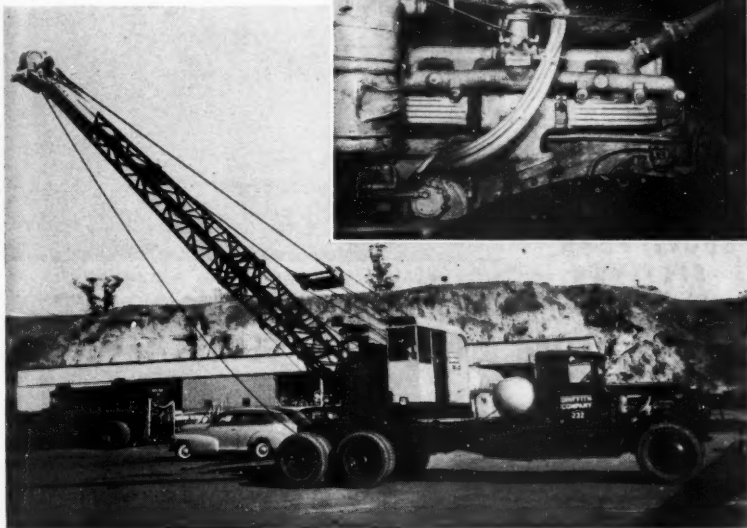
are subject to wear and failure. Each branch shop has these spare units on hand. When any such unit is taken off, it is sent in to the main shop in Los Angeles for rebuilding.

All electrical and carburetion work is performed by specially trained technicians at the main plant in Los Angeles. Complete and modern testing and rebuilding equipment is on hand, and highly trained mechanics do the work. One man does all of the rebuilding of the carburetors and regulators.

#### **Drivers Like to Tinker**

Truck drivers and other engine operators react very much alike, regardless of the type of fuel in use. Most of them want to tinker with their carburetors, and this is the first thing they try to do whenever any operating defect shows up in their equipment. The servicemen assigned to the branch shops also had a bad habit of fooling with the carburetors and regulators. Attempting to readjust the regulators in the field led to many problems, and the management became convinced that unskilled and inaccurate field work on regulators led to even more serious difficulties with the engines. Persuasion failed to change human nature, so they went a step farther—an order was issued by the general superintendent forbidding any adjustments on fuel equipment anywhere except at the central shop. Then central shop proceeded to put seals on the adjustments. No unauthorized person is allowed to break one of those seals, under penalty of discharge

The mobile crane which operated for seven years without major engine repairs.



Above (right): The regulator and carburetor on the crane engine ran the entire seven years without removal for service.

from the company. Authorization may be obtained in emergencies by telephoning to the general superintendent's office. It is seldom granted. Such a request generally results in a personal visit to the branch, and a careful check-up on the engine in question. Almost always it is found that something other than fuel equipment is at fault.

For example, a request came in for permission to readjust a regulator in the field. The engine was short of power, and could only be started by towing the truck. The

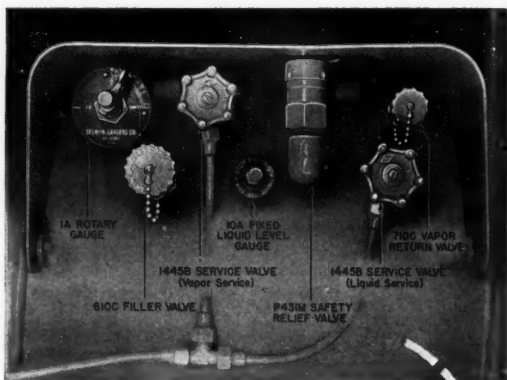
carburetor man from the central shop picked up the maintenance record of that engine, put his tools and instruments in the car, and drove out to the job. The engine had not had any mechanical work for more than 100,000 miles. A quick check with the compression gauge showed that it had very little compression, and hence could not have developed normal power or started easily under any conditions. The valves were reconditioned, and normal operation was restored without touching the regulator,



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TRACTORS  
USE**



**FUEL TANK  
FITTINGS**



**SELWYN-LANDERS LP-GAS VALVES & GAUGES SIDE MOUNTED.** All fittings listed with Underwriter's Laboratories.

## EVERY FITTING A PRODUCT OF SELWYN-LANDERS

Here you see the latest Minneapolis-Moline Model "G" LP-Gas Tractor equipped with the latest and best in LP-Gas equipment—fittings for quickly and safely transferring LP-Gas to and from the tractor tank.

Here too you see the Pioneer builder of LP-Gas tractors using valves and gauges designed and built by the pioneers in the field of LPG engine fuel tank fittings.

Other models of Minneapolis-Moline LP-Gas tractors also are Selwyn-Landers equipped—an assurance to the tractor owner of safety and dependability in his fuel tank fittings.



**WRITE OR WIRE FOR COMPLETE  
INFORMATION ON TRACTOR  
LP-GAS TANK FITTINGS.**



**SELWYN-LANDERS  
COMPANY**

**4709 E. Washington Blvd., Los Angeles 22, Calif.**



which was shown on testing to be operating perfectly.

A 3000-gallon fuel tank has been installed at the main shop of the company in Los Angeles, together with a dispensing pump. Fuel for the equipment on outlying jobs served by branch offices is now supplied by the American Liquid Gas Corp. which sends fuel delivery trucks right to the job, and fill the vehicle and equipment tanks directly, eliminating the need for local storage tanks and dispensers. Vehicle and equipment tanks have ample capacity for a minimum of two days' operation. However, deliveries are made each day, with the reserve capacity in the tanks guaranteeing against shutdown in case of a temporary delay in delivery.

Griffith Co. has recently been replacing some worn-out trucks with new units. The old trucks, between 12 and 15 years old, had such low trade-in value that it was decided to junk them, but the fuel units did not go to the junk yard with the trucks. Tanks, regulators, filters, and carburetors were stripped off and retained for future use.

After 16 years, the Griffith Co. is still enthusiastic over the operation of its fleet of heavy duty equipment on LPG.

### **New Heavy Duty Tractor Factory-Equipped for LPG**

Minneapolis-Moline recently introduced the 4-5 plow "G" tractor with a new heavy-duty L.P. Gas engine designed to give balanced power and improved fuel economy.

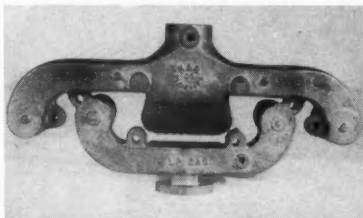
This new engine has a 340-cu. in.

piston displacement, 4¼-in. bore, 6-in. stroke, and an 8:1 compression ratio.

Special L.P. Gas manifolds and carburetion equipment have been combined with MM high compression, high turbulence combustion chamber features in the new engine. These have been engineered for reserve power balanced with fuel economy and MM high-torque at moderate speeds for added efficiency and long life.

### **Cold Manifolds Available For Converted Tractors**

Hi-Compression Products Co., of Washington, Iowa, has a completely new line of Hollingsworth "extra cold" manifolds designed specifically for use on tractors converted to L.P. gas to eliminate heat off the intake manifold.



The manufacturer has conducted tests which show that fuel consumption is reduced as much as 20% on converted tractors with the installation of the new cold manifold. They also claim that on a tractor with a set of their high compression inserts and the manifold, fuel consumption was reduced by as much as 40%, together with an increase in power.

Manufacturer of the inserts and cold manifolds is Hollingsworth-Stempel & Co., Ollie, Iowa. Hi-Compression Products Co., however, markets the equipment exclusively.

## Drilling Rig Burns 1000 Gals. Daily

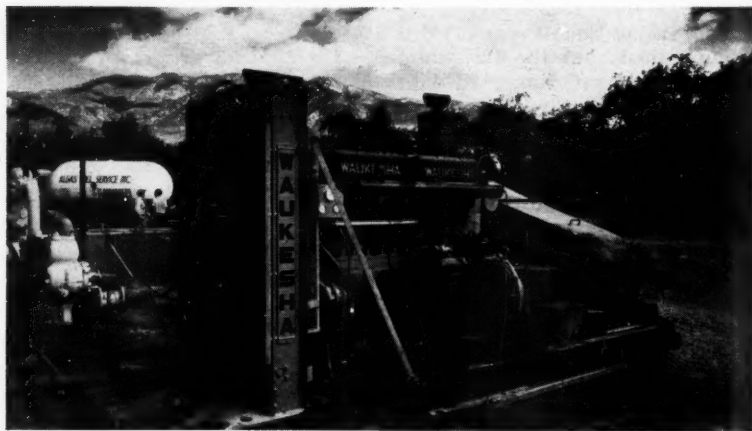
**M**AKING a hole for Bankline Oil Co. on its "BL-D1" well in the Ojai (Calif.) area, propane-fueled Waukesha engines provide power for the drawworks and for the mud pump.

The propane gas is delivered, as required, by Algas Fuel Service, Inc. from its Ventura station 20 miles away from the rig, and metered into a 3000-gal. storage tank. Fuel consumption, pretty evenly distributed among the three engines, runs to an average total of

By **FRED M. BURT**

about 1000 gals. of propane gas daily, or a net daily fuel cost of about \$80.

Acme Drilling Co., of Long Beach, is doing the drilling which was started on Sept. 7, 1951, reaching a depth of 7475 ft. Dec. 12, after having encountered hard formations, a depth which is very close to the oil company's calculated objective.



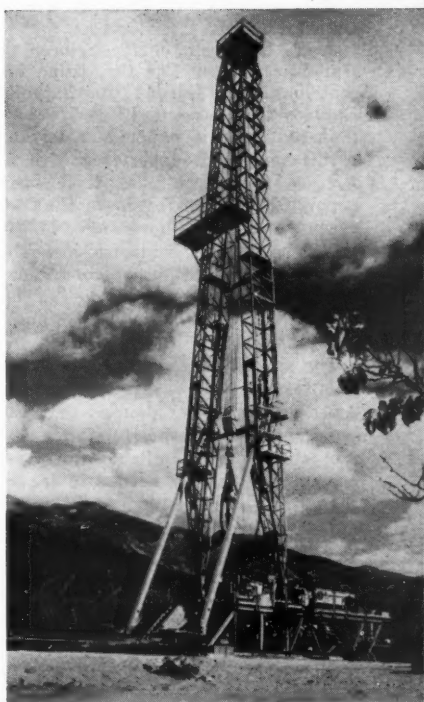
Close-up view of 375-hp. Waukesha engine hooked up to oil well mud pump, and propane delivery tank truck at left rear.

This operation makes an important addition to others, which mark the growing use of L.P. gas as a power fuel on drilling rigs, with a fueling system that can quickly be switched to natural gas, if and when it might become available at the well.

Each engine has an Ensign multi-fuel installation. The liquid propane is fed to a filter with a shutoff valve, and then to a Model "HD" 3-coil vaporizer, which reduces the pressure to 10 psi and then to an intermediate or "line" regulator to reduce the pressure to about 10" water column (4-6 oz.). Beyond this, the pipe line runs into a larger, natural gas inlet line (for possible future use) with a shutoff valve below the point of juncture.

This line carries the propane to an Ensign Model "B" regulator which is a dual purpose unit designed for low pressure regulation in the fuel metering. Its flow characteristics are closely controlled by a carefully calibrated and "sized" venturi within the Ensign 2½" Tg combination carburetor, next in line to feed the proper gas-air mixture to the engine's cylinders. On the bottom of this carburetor, there is an L.P. gas-natural gas load adjustment screw to provide for switching from 3100 Btu propane to 1100 Btu natural gas.

The reason for switching from propane to natural gas would be if gas were struck in drilling, the gas would then represent a fuel at no cost though providing no engine performance benefits. In this particular drilling operation, there is little likelihood of any fuel change.



Propane plays important part in this oil drilling operation at Ojai, Calif. Derrick rises 133 ft. above substructure which is 9 ft. off the ground.

## Discuss LPG as Motor Fuel At National SAE Meetings

The increasing importance of L. P. gas as fuel for internal combustion engines is evidenced by the fact that papers dealing with the subject were presented before the National Transportation Meeting and the National Fuels and Lubricants Meeting of the Society of Automotive Engineers,

which were held in Chicago late in October.

J. E. Glidewell, chief engineer of Hall-Scott Motor Car Co., titled his contribution, "Large Conventional Engines for Trucks and Buses." More than half of this paper was devoted to his company's experience with L. P. gas, for which they have been supplying engines for more than 20 years. He listed as advantages of the fuel, the cleaner exhaust and the lowest rates of crankcase contamination and engine wear produced by any of the three widely used automotive fuels.

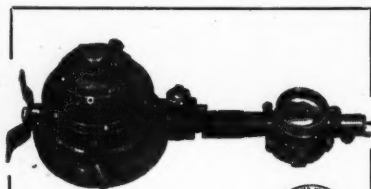
The use of the highest practical compression ratio to secure maximum fuel economy, he pointed out, is sometimes complicated by factors of fuel composition. In using propane, a very high ratio is needed to secure comparable fuel economy. This is

feasible on account of the high anti-knock value of the propane, but where butane or propylene, both of which have lower anti-knock values, are likely to be included in the available fuel, experience shows that it is better to stay with more conservative ratios. Mr. Glidewell recommended that large users of L. P. gas engines should buy their fuel to specifications.

### Diesel Fuel Discussed

In the Fuels and Lubricants Section paper presented by E. J. McLaughlin, P. L. Pinotti, and H. W. Sigworth, of California Research Corp., under the title, "Power Booster Fuels for Diesels," evidence was presented to show the advantages of the better use of air in high speed diesel engines when a portion of the fuel is carbureted. Their tests showed that the carbureted fuel should be introduced in a mixture too lean to support combustion, ignition taking place later through the regular diesel process. The "power booster fuel," as they called the carbureted supply, should be of high anti-knock value and thoroughly vaporized, so it could serve as a kindling mixture to accomplish the more complete combustion of the injected diesel fuel.

Their laboratory work was verified by extensive road tests, using a regular automotive type diesel engine equipped with L. P. gas for the booster fuel. They determined that this combination enabled them to increase the power of the engine without increasing the amount of smoke (which could not be done using straight diesel operation), or they could hold the same amount of power with a very considerable decrease in smoke. At constant power output it was also noted that the total fuel consumption was reduced.



**All DIX Units  
are liquid . . .  
And one price.**

Equip your car, truck, tractor,  
or stationary engine now.

**IMMEDIATE DELIVERY**

**DIX MANUFACTURING CO.**

**3447 E. Pico Blvd.  
Los Angeles 23, Calif.**

Export: 301 Clay St., San Francisco

# New Design For Service Truck Solves Many Delivery Problems

By MYRA HILDERBRAND

**M**UCH swifter service for customers, either from gas delivery or service standpoint, around 13% less delivery cost per year, and vastly increased operating efficiency, are all advantages which have accrued through design of a new type of gas-route service truck by Modern Gas & Supply Co., Mascoutah, Ill.

The new trucks are lightweight pickup units, mounted on  $\frac{3}{4}$ -ton Ford chassis, which do away completely with worries of theft, weather damage, etc., in handling equipment. Each body projects out over the wheels, and is made up of complete compartments, with separate space for large and small tools, equipment, etc., and in addition has larger space for bottle haulage.

## Planned in Advance

In ordering the truck, the Modern Gas & Supply Co. specified a number of unusual requirements which were met by a cooperating body builder. First, access to compartments behind the rear wheels is gained by lowering a full-width tailgate, protected by a drip molding against rain and snow. The heavy-duty tailgate is of 1-piece reinforced steel construction, and can serve as a step or a workshelf, as required. Inside the compartments on either side of the body over the wheels are trays which extend the entire length of the body, providing space for long tools, such as pipe wrenches, drills, sledge hammers and similar materials. Likewise, the long trays

may be divided into tiny individual compartments, for fittings, valve parts, nuts, bolts and screws. In addition to these, there are 10 permanent bins on either side which facilitate orderly storage, and prevent the mixing of small parts. All trays, incidentally, have a retainer flange, which prevents the contents from spilling out the front.

Modern Gas & Supply Co. experimented with many types of compartments and bodies before deciding on the "optimum design" represented here. All compartments, shelves and partitions are designed to give a wide variety of storage arrangements to the individual user. The metal edges of all shelves and metal surfaces are provided with a rolled edge, which gives increased strength and prevents cuts, scratches, and torn clothing.

Where pressure-testing equipment, portable bottles of gas, lead melting pots, etc., are concerned, a vertical compartment is designed to carry these with plenty of space. It is provided with two removable pressed steel shelves which are adjustable to various heights, and can be readily and easily removed when larger compartment space is required.

## Guarded Against Meddlers

All of the compartments are covered by a single, large, swinging door, which latches firmly in place, and may be either padlocked, or provided with extra safety with a tumbler lock and key. Just ahead of each rear wheel is the large vertical compartment referred to above, which



This specially-designed cylinder truck gives better service at less cost than other types used by Modern Gas & Supply Co., Illinois distributor.

likewise may be locked, making it possible to leave the truck out on the job overnight, which was an impossibility with almost any other former variety.

#### All Compartments Reinforced

All compartments are protected with triple - sealed, weather - tight doors, inside reinforcing frame and door panels. The body shell was constructed of 16-gauge steel which, it was felt, would stand up to rough operations, and electrically welded to form an integral unit. The interior of the front and rear panels is heavily reinforced with split tube steel welded along the bottom of side panels to increase strength and durability.

The storage bins, which were strongly stressed, have 3-inch retainers, and are fitted with removable dividers. The bottom of all compartments is dropped 2 inches below the doorline, providing a retainer flange which prevents materials from jarring against the door and spilling out when the compartment is opened.

#### Protane Corp. Hold Annual Meeting For Employees

The Protane Corp., of Erie, Pa., this year inaugurated an activity unique in employer-employee relations. On Jan. 3 the company played host to all of its employees, their wives and husbands at a dinner held in the home office in Erie, and simultaneously in 17 different central points in the 22 states they now serve. In Erie the meeting was held at Pulakos-on-the-Lake and attended by 200 persons.

At the dinners, Protane reported to its organization on the progress made during the past year and plans for 1952. In Erie, the home office, the report was given by H. N. Forman, president. The same message was given in each of the area meetings by the manager of the district in which the meeting was held. All in all, more than 1000 persons were in attendance.

Protane Bottled Gas Service is one of the oldest marketers of bottled gas in America, serving more than 100,000 homes, businesses and industries.



STEEL makes progress possible—in war or peace...in the manufacture of everything from tableware to tanks, razor blades to skyscrapers, baby carriages to “Big Mo”.

How well does competition work in the steel business?

... the U.S.A. shows an 83.4% gain in steel output between 1939 and 1950. The rest of the world shows an 0.8% loss.

... In 1939, the U.S.A. under “competition” made  $\frac{1}{3}$  of all the world’s steel. Today we produce half—all with only 6% of the people in the world.

... Steel workers under “competition” gained in jobs, too. There were 449 thousand jobs in 1939. Today—637 thousand.

The steel industry is just one example of what all of us can expect under

a free competitive system. Ours is the security millions of people in the world dream of when they embrace such dead-ends as “planned economies”.

Look around and see what happens when people hand their jobs and their factories over to the government. Or have them taken by law. Or by force. Name it what you will—“communism”, “nationalization”, “socialism”, “regimentation”—it is a one-way street and no turning back. By then people no longer own government. Government owns the people.

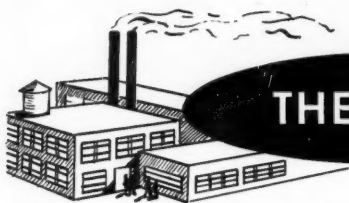
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THE COMPETITIVE SYSTEM DELIVERS THE MOST TO THE GREATEST NUMBER OF PEOPLE

FEBRUARY — 1952

141





## THE TRADE



On January 1, the day that Magic Chef, Inc., became the corporate title of the American Stove Co., R. Ted Pepple was named assistant advertising manager, according to Tom Gibbons, advertising manager.

Mr. Pepple will work directly under Mr. Gibbons and supervise certain phases of the company's nationwide advertising program.

The opening of a San Francisco sales office for Black, Sivalls & Bryson, Inc., has been announced by Henry A. Ruysser, Jr., vice president

and general sales manager of the firm.

Ross Baze, West Coast sales manager, headquartering in the newly opened Los Angeles office, will be in charge of the San Francisco office, locally assisted by Warren J. May, sales engineer.

The San Francisco office will handle the complete line of BS&B products in the northern part of California. The address is 55 New Montgomery St.

Norman E. Carlson has been appointed assistant chief mechanical engineer of the American Car and Foundry Co., according to G. K. Bradfield, Jr., chief mechanical engineer. Coming to ACF after eight years' service with the Great Northern Railway, he will make his headquarters in New York.

Leo F. Anderson, sales engineer in the St. Louis office of Surface Combustion Corp., was fatally injured in an automobile accident on Dec. 20. Mr. Anderson, 34, had been associated with Surface Combustion for the past two years.

James W. Slowe has been named Minneapolis district sales manager for Servel refrigerators and water heaters, John K. Knighton, vice president in charge of sales for Servel, Inc., has announced.

Mr. Slowe, for the past two years



H. R. Singleton (center), Midwest division manager of Florence Stove Co., won the "TNT Sales Training Contest" in his group. He is being presented with a trophy by C. Fred Lucas, vice president, while Robert H. Taylor, president, looks on. The presentation was made at a December sales meeting at the Gardner, Mass., plant of the company.

dealer representative for the company's sales branch in Detroit, previously represented Servel in Cincinnati, Washington and Pittsburgh.

He succeeds B. P. Collins, who has been transferred from Minneapolis to Columbus, Ohio.

Resuming his duties as New York district manager for Kerotest Manufacturing Co. is Paul O'Brien who has been on loan to the National Production Authority since January, 1951. Mr. O'Brien joined Kerotest in 1945. He will headquarter in New York at the Kerotest sales office, 60 E. 42nd St.

Carlton H. Gilbert has been appointed to the newly created position of advertising manager of the United States Rubber Co., according to T. H. Young, director of advertising. Mr. Gilbert has been with U. S. Rubber

since 1934 when he joined the sales promotion department of the company.

The annual sales meeting of American Meter Co. was held in Dallas recently. Representatives of the sales department and key members of the company's manufacturing divisions assembled for a three-day meeting held prior to the formal opening of the company's new Dallas plant. The operations of the company for 1951 were reviewed and the plans for 1952 discussed.

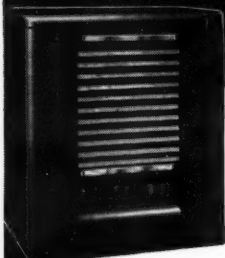
The formal opening of the new plant included an open house held in the reception and display rooms.

John R. Ferguson has been appointed district manager of the General Controls Co. branch office at Denver, and Herb Lindstrom, former Denver branch manager, has assumed



Two butane dealers from London, England, paid a visit to the Trinity Steel Co. in Dallas recently. Shown here standing beside a transport truck are (left to right): W. Ray Wallace, secretary-treasurer, and C. J. Bender, president, both of Trinity Steel; and John Mackay and T. O. M. Pope, of British Cutting Gases, Ltd., London. Culmination of the visit was the purchase of six Trinity Steel transports.

# Hold Inventories DOWN



Fan-Forced-Air  
or  
Circulating  
Gas Heater

40,000  
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BTU Capacity  
Fully AGA  
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Low-cost circulating GAS Heater easily converted into a deluxe fan-forced-air heater with Oakland interchangeable attachments.



*Now!* Oakland Blower attachment available for additional air circulation . . . hotter heat volume.

One Model  
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Oakland Foundry Co.  
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**Oakland**  
Foundry Co.

a similar position at the Minneapolis branch, it is announced by J. F. Ray, vice president in charge of sales.

Mr. Ferguson formerly managed the Salt Lake City branch office. He and Mr. Lindstrom will be in charge of all activities in their respective territories, including sales, engineering and service on General Controls' line of automatic controls.

Built expressly to house its recently established appliance controls division, a new plant has been completed on the property of General Controls in Glendale, Calif.

The new facility, which covers 15,000 square feet of working space, will be devoted to the manufacture of appliance controls for gas ranges, water heaters, room heaters, and other appliance specialties.

Two members of the American Radiator & Standard Sanitary Corp.'s research department have been promoted to new positions by J. C. Reed, vice president of research.

Frank E. Hanson has been named products engineer and will supervise all field research in the development of new products for American-Standard. Before his promotion he was chief engineer of the company's gas department.

John B. Uhl, formerly assistant to Mr. Hanson, succeeds him as chief engineer of the gas department. Mr. Uhl joined American-Standard in 1948 as a design engineer.

The establishment of two additional supervisory sales districts and six new sales offices to provide more thorough coverage of territories and to bring field management in closer contact with customers has been announced by D. D. Couch, vice president, sales.

The expansion program involves the following promotions:

J. A. Hickman, district sales man-

ager for the new East Central district, will headquarter in Cleveland and supervise sales offices in Detroit, Cleveland, Cincinnati, and Pittsburgh.

L. L. Graves, district sales manager of the South Central territory, will supervise sales offices in Kansas City, St. Louis, Omaha, New Orleans, and Dallas, from his headquarters in Kansas City.

Donald E. Sander moves from the Dallas office to manage the New Orleans sales office.

George W. Palmer has been named manager of the new Cleveland office.

Robert F. Henderson has been appointed manager of a new office in Omaha, Neb.

L. R. Graves will manage the new Long Island sales office.

Albert J. Ellison has been selected manager of the Jacksonville, Fla., office.

Robert G. Holmes will manage the new Salt Lake City office.

Five other men received promotions in the expansion moves.

John E. Huey, former assistant manager, succeeds Mr. Hickman as manager of the Atlanta sales office.

Karl H. Smith was named to replace L. L. Graves as manager of the Denver office.

Frederick R. Dannies has been appointed manager of the Milwaukee sales office, while Ross E. Bishop has been named assistant manager of the Minneapolis office and Howard A. Steiger becomes assistant manager of the Newark sales office.

George L. Gillette, vice president and general sales manager of Minneapolis-Moline Co., recently resigned from the company after 46 years of service. He will continue as a member of the board of directors.

Frank N. Langham, manager of the company's division office in Kansas City, Kan., was appointed general sales manager to succeed Mr. Gillette,

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**Liquefied Petroleum Gas  
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A DEPENDABLE SOURCE  
UNIFORM PRODUCTS  
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**IN LP GAS ALSO**  
CITIES SERVICE  
MEANS  
GOOD SERVICE

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**CITIES SERVICE  
OIL CO.  
(Del.)**

•

BARTLESVILLE, OKLA.  
CHICAGO, ILL.

Other Sales Offices

Cleveland  
St. Paul

Kansas City  
Toronto

according to W. C. MacFarlane, president and general manager.

Mr. MacFarlane also announced that W. B. Taylor, assistant general sales manager, requested retirement from his present position but has agreed to continue as consultant until April 1. Harry R. Colvin succeeds Mr. Taylor. Mr. Colvin has been with the company since 1927 and formerly served as a district sales manager.

Perfection Stove Co., Cleveland, has announced the appointment of A. J. Tener, vice president, as director of market research. In his new position, Mr. Tener will report directly to President D. S. Smith. J. C. Scott was named assistant director.

The newly created division will be concerned with market analyses, sales forecasts and studies of marketing areas, territorial boundaries, etc.

Perfection held its 5-day sales convention recently with salesmen from all over the United States and Hawaii viewing the company's new line of ranges and heating equipment.

Rheem Manufacturing Co., through its president, Richard S. Rheem, has announced the election of Robert P. Williams, Jr., and Clarence Graham, Sr., as vice presidents.

Mr. Williams, Washington manager, headed up the Rheem program of developing and manufacturing hermetically-sealed, shock-mounted metal containers for all types of aircraft engines.

Mr. Graham was president of the James Graham Manufacturing Co., Newark, Calif., manufacturers of the Wedgewood gas range. The Graham company was acquired by Rheem last year and is now being operated as the Wedgewood division.

W. H. Wise has been appointed to the post of director of sales for Bry-



WM. H. WISE



J. N. CRAWFORD

ant Heater Div., Affiliated Gas Equipment, Inc., Cleveland, according to J. H. Hughes, vice president.

Mr. Wise, assistant director of sales for the past year and Midwestern sales manager before joining Bryant's headquarters sales staff, succeeds J. N. Crawford, who was appointed to the position of assistant to the president of Affiliated Gas Equipment.

Robertshaw-Fulton Controls Co. has announced several appointments in its various divisions, according to T. T. Arden, executive vice president of the company.

In the Anaheim (Calif.) division, Hal Singleton has been named contract administrator. Mr. Singleton will represent the division in all government and military contacts.

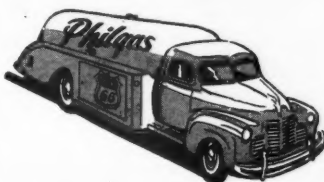
M. J. Caparone is now chief engineer of the Grayson Controls division in Lynwood, Calif., replacing T. H. Jeffers who has been transferred to the Anaheim division.

A. W. Beck has been named sales manager of Grayson Controls. Mr. Beck has served as sales engineer for the past five years.

Frank J. Nunlist, Jr., has been appointed general sales manager of the L. J. Mueller Furnace Co., Milwaukee,

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PROFITS WITH THE  
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## 5-WAY PROFIT PLAN!



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2. Dependable Supply
3. Experienced Engineering
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## PHILLIPS PETROLEUM COMPANY

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Offices located in Amarillo, Tex., Atlanta, Ga., Chicago, Ill., Denver, Colo., Des Moines, Ia., Pontiac, Mich., Indianapolis, Ind., Kansas City, Mo., Milwaukee, Wis., Minneapolis, Minn., New York, N. Y., Omaha, Nebr., Raleigh, N. C., St. Louis, Mo., Tulsa, Okla., Wichita, Kan.

**Your  
CUSTOMERS  
WANT THE**



**... WE  
CAN HELP  
YOU GIVE IT TO THEM! "**  
**REGO LP GAS EQUIPMENT**

Rochester Criterion Gauges—Aeroquip Hose  
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tomatic control) I C C Cyl-  
inders—Okadee Valves



**GAS EQUIPMENT  
SUPPLY CO.**

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PLANTS**

**for UTILITY  
INDUSTRY  
HOUSING PROJECT  
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*Serving utility and industry for over  
thirty years*

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according to President H. P. Mueller.

Mr. Nunlist, succeeding C. L. Hewitt, Jr., will direct the company's expanded sales program for 1952. He is active in the heating industry having served on various committees of GAMA, National Warm Air Heating & Air Conditioning Assn., and the American Society of Heating & Ventilating Engineers.

## **Truck and Trailer Show For Los Angeles June 12-15**

The 3rd annual truck, trailer and equipment show returns to the Pan Pacific auditorium in Los Angeles June 12-15.

Ray Labory, of the Union Oil Co., president of the Automotive Council of Los Angeles, Inc., the organization which each year sponsors the show, announced that this event is rapidly becoming the showcase for national, regional and local manufacturers of trucks, commercial trailers and allied equipment, and early response to the announcement of the 1952 show promises that this year's event will be even better than those of the past.

## **Oklahoma Dealers Seek Legislative Help in Shortage**

**By O. D. HALL**

Study of the LP-Gas shortage problem in Oklahoma has been taken before the state legislative council. At a hearing before that body in Oklahoma City on Jan. 3, it was decided by the industry to cooperate with the council by creating a committee of three producers, three dealers, three members of the council and the state fire marshal to further consider the many-sided phases of the problem. This was intensified by a heavy sleet storm which covered the highways with ice and made many of



them next to impassable during the first week of January.

The legislative council does not have the authority to enact laws but can recommend legislation on any subject to the next session of the legislature in 1953.

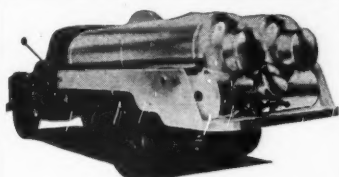
T. J. Allison, Tulsa dealer, pointed out that this is the same problem which arises every winter. "If only you dealers could get together," he declared. "Now you are coming before the legislature asking for laws and admitting that you can't regulate yourselves."

W. D. Lance, Vinita dealer, stated that large storage capacity in the hands of the dealer will not solve the problem during cold spells because the real trouble during such times is to deliver the gas over icy roads to the consumers. "Storage should be out there connected to the appliances of the customers," he said. "When you have storage at the dealers the cost is borne by the consumer. After all, there is no Santa Claus."

## Portable Propane-Air Unit Pinch-Hits for Natural Gas

Portable propane-air units were utilized by the Lone Star Gas Co. during a recent line change to supply Killeen and Fort Hood, Texas, with sufficient pressure for more than three hours while the flow of natural gas was completely shut off.

According to the company, the portable units, conceived and constructed by several Lone Star engineers, are the only portable propane-air units known to be in operation in the country. Permanent units are used in the East as auxiliary boosters and to supply small town plants, but it is believed that Lone Star is the first to make use of such a unit to avoid construction of a long, main line by-pass.



## New PROPANE DELIVERY TRUCKS

1250 gal. As illustrated on NEW, 1951 standard make truck, pump, hose, piped ready to go.

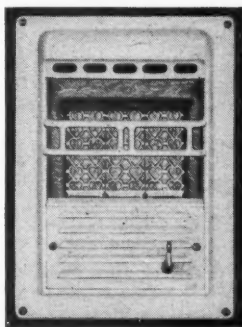
**\$3,995.00 including truck**

Meter & propane carburetion extra.  
Larger sizes available. Immediate delivery.

Preston "propane" Grace

**WHITE RIVER  
DISTRIBUTORS, INC.**

Batesville, Ark. Phone 570 or 686.



Clean design of these heaters is easy to sell. Substantial backwall provides fine heat radiation. Two sizes available.

**ADAMS BROS. MFG. CO., INC.**  
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**WANTED — EXPERIENCED SERVICE** and installer to work on LP appliances with a well established firm in western Kansas. Steady employment, good salary if you can qualify. Answer in own handwriting to Box 555, BUTANE-PROPANE News, 198 So. Alvarado, Los Angeles, Calif.

### SITUATIONS WANTED

**MAN—16 YEARS EXPERIENCE.** CAN handle men and bulk plant, installation and service. Can meet public and sell. Willing to work hard for future. Write Box 515, BUTANE-PROPANE News, 198 So. Alvarado, Los Angeles, Calif.

### BUSINESS OPPORTUNITIES OFFERED

**FOR SALE—A BUSINESS** PAYING dividends in Kansas. 3 propane trucks. 320 100# cylinders. 3 delivery trucks. Storage and pumps. Building with warehouse and office space. With or without inventory. Located in a good thriving community. Make us an offer. Box 575, BUTANE-PROPANE News, 198 So. Alvarado, Los Angeles, Calif.

**SUBSTANTIAL AND GROWING L. P.** gas business for sale, in the heart of the San Joaquin valley. Plant and service station located on one of the busiest highways (#198) in the state of California. Sale includes delivery trucks, storage tanks, leased tanks and modern, beautiful gasoline service station which also dispenses butane and is completely equipped. Must be seen to be appreciated. Statement from bank showing ability to pay to \$75,000 necessary before any inquiries answered. Box 590, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles, Calif.

### BUSINESS OPPORTUNITIES OFFERED—Cont.

**FOR SALE—BUTANE & PROPANE** bulk plant. Over 60,000 gal. storage. Clear of debt. With tractor business. Over 90 house tanks in stock, over 750 customers. Would trade for land or rental property. J.D. Tate, Grenada, Miss. Phone 1098M.

**FOR SALE—COMMON STOCK** IN A well established expanding propane bottled gas corporation in a north central state. Write Box 595, BUTANE-PROPANE News, 198 So. Alvarado, Los Angeles, Calif.

**FOR SALE—L. P. BUSINESS.** BEST location in Pacific Northwest. 18,000 storage, delivery truck, pickup, store, etc. A real opportunity. Selling 4 to 5 cars per month. Has built to this in 8 months. Priced right. For details write P.O. Box 232, Burley, Idaho, or 110-2nd St. So., Nampa, Idaho, care Knu-Gas Company.

**EASTERN WAREHOUSING AND DISTRIBUTION** facilities available. Complete facilities for warehousing, stocking, repacking, shipping and billing if desired. Centrally located for overnight delivery to all New England states, New York, New Jersey and Pennsylvania. Branch office set-up available. Write Box 600, BUTANE-PROPANE News, 198 So. Alvarado, Los Angeles, Calif.

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